why we abandoned quail hatcheries

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Director

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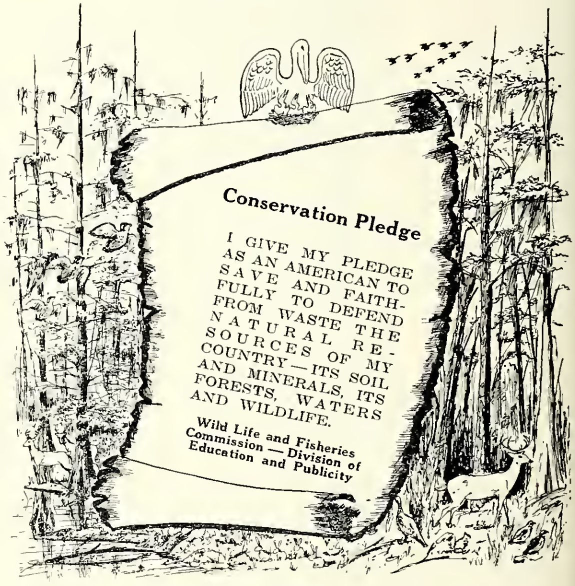

Conservation Pledge

I GIVE MY PLEDGE AS AN AMERICAN TO SAVE AND FAITHFULLY TO DEFEND FROM WASTE THE NATURAL RESOURCES OF MY COUNTRY—ITS SOIL AND MINERALS, ITS FORESTS, WATERS AND WILDLIFE.

Wild Life and Fisheries Commission — Division of Education and Publicity

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Message from the Director...

L. D. Young, Jr.
Director

Louisiana
Wild Life and Fisheries Commission

Managing Louisiana's freshwater fisheries, from Bistineau to Pearl River and from Lake Providence to the Calcasieu, is becoming one of the Commission's major programs.

With a 12 month growing season, freshwater fish literally outgrow their habitat in many places, presenting the problem of controlling one or more of the species to maintain a balance between rough fish and game fish. A prime example is Clear Lake in Richland parish, where 99 per cent of the population was shad. These fish had taken complete charge of the lake, occupying space which could be better utilized by other species. Thousands of pounds of these shad were removed more than a year ago by the use of seines. Evidence of the effectiveness of this type of management is already apparent, since fishing in Clear Lake for bream, sac-a-lait, and bass has improved appreciably.

Another type of management is the use of rotenone in sampling water bodies throughout Louisiana. This chemical is applied by power pumps into areas surrounded by netting. The gills of the fish are affected, cutting off the oxygen supply and sending the fish to the surface where they are picked up by crews for weighing, aging, and other examination. These fish are still edible, and are utilized wherever possible. This type of sampling is done to secure information relative to the balance of game fish to rough fish. We often find that the waters are overcrowded, resulting in retarded growth rates.

Louisiana's four million water acres, properly managed, can offer indefinitely a bountiful harvest to sportsmen of this state as well as to the myriads of visitors who help us reap benefits of this fabulously wealthy in natural resources state.

—*Photo by Blanchard*

QUAIL In Louisiana

by Claude Gresham

In 1952 the Louisiana Wild Life and Fisheries Commission ended its quail restocking program. Why?

We can bring out the essential facts as to why in just about one short paragraph. Then you, a Louisiana license buyer, can answer the question. Let's put it this way. You're playing the horses at your local Hunter Downs and the tote board shows the odds on Mr. Bobwhite in the fifth at 1 to 200. That's right, 1 to 200—not 200 to 1. For every hundred bucks you lay on the line you can reasonably expect to get four bits back. Would you lay your hard-earned cash on Brother Bob on a proposition like that? We think not.

Here's the way we arrived at the above odds. During the four years from 1949 through 1952 Louisiana released 144,029 pen reared quail. All were banded prior to release, yet only 855 bands have been returned. That figures out at slightly more than half of one percent return. The cost of releasing these birds was about two dollars each; thus *about $400 of your money was spent for each quail that we can account for through band returns.*

If you think there was some slip-up in the figuring somewhere, just check the Louisiana data against that of three other states. In 1937 Pennsylvania released 8,804 hatchery birds and got only 74 band returns—0.84 percent. Oklahoma, from 1942-46, released 57,062 and got a return of 1.26 percent. An Atlantic coast state liberated 13,500 for a 1.12 percent return. Not a great deal of difference in the figures, is there?

Not all of the bands that were recovered were turned in. That we know, but even if we assume that twice or even three times as many bands were recovered as were turned in, what do we have? At three times the figure, we still have only 1½ birds recovered for each 100 released. Remember, too, that not all of the band returns came from hunters' bags. Many came from birds killed by the farmer's cat, or by a fox, or a hawk, or from birds just found dead in the field. These birds certainly contributed nothing to the overall quail population, yet they still cost $2.00 each to release.

Study Made

One of the most thorough studies as to the survival of pen reared quail ever made was made by the Pittman-Robertson section of the Louisiana Department of Wild Life and Fisheries. It covered a six-year period from 1941 to 1947 and was under the leadership of Carroll Perkins and Rowland Vernon, both of whom are still with the department. *They found an average survival of not more than 6%.*

The report of this study can be found in the First (1944-45) and Second (1946-47) Biennial Reports of the Department of Wild Life and Fisheries. The work was carried out on seven experimental areas scattered throughout the state in a wide variety of range conditions. In each type there was a control area alongside the release area. Quail populations were censused on each before the study began and throughout the six-year period. Perkins and Vernon released pen reared quail on these areas at various times of the year and at various ages. They closely observed these released birds and recorded everything that might be of value. I will not go into the details of the study, but some of the concluding remarks will be of interest: "It seems clear from these experiments that restocking of areas with pen reared quail is of very little value because the birds do not survive in sufficient numbers to increase the population, nor is there any indication that they breed readily after release. What, then, is the cause of such a low survival rate? As has been pointed out in other parts of this report, there are many factors which seem to play a part in the death of released quail, but the significant point is that the loss from hunters and authenticated predation accounts for only a very small part of the total. *Evidently starvation, inability to adjust to the wild environment, and a general inability of the range—without improvements—to support more than the existing population, are the primary causes for a lack of success in restocking.* Furthermore, it is clear that if the range is improved so that it can support a larger population, the already present native population is stronger, breeds better, survives better, and in all instances is more able to restock and is more satisfactory for restocking in the area."

The rapid and progressive loss of hatchery birds in the field is painfully apparent in these figures from the Louisiana study: Thirty days after their release only 65% of the birds were alive. At the end of sixty days, only 37.9%; after 90 days, 19.8%; after 120 days, 12%; after 150 days, 5.9%, and after six months, only 2.7%. Perkins and Vernon arrived at these figures by meticulously following the progress of 3,600 quail which they released.

It is interesting to apply this percentage criteria to the 105,178 quail released over the state of Louisiana during 1949, 1950 and 1951. With that base we see that only 30,660 of those 105,178 birds were alive when the hunting season opened. Not taking into account the hunter kill, only 6,749 were alive at the end of the season. Using round figures, let's see what these birds cost. Originally, the 105,000 cost $210,000, but by the time the hunting season rolled around the cost for each pen reared quail available to the gunner had risen to about $7.00 each. Not counting shooting loss, each pen reared quail still available to the shooter at the end of the season was worth $30.00.

These percentage figures for the survival of hatchery birds after varying periods of time were measured against a similar study completed in Kentucky in 1949. Thirty days after release only 34.4% of the Kentucky birds were left, while our survival at that time was 65.0%. After sixty days our survival was still about twice as great, but after that the difference became progressively less. At the end of four months the number of birds left was almost the same.

Population Level Not Raised

Throughout all of these studies the most salient fact was that the overall quail population level of the study areas was not raised by the release of pen reared birds. Graphs showed that the population level rose abruptly with each release, but then rapidly came back down until it approached that of the original native population. This is a clear indication that the area already supported a maximum number of quail for the condition of the range.

Quail In Louisiana

The Bobwhite is one species of wildlife that the activities of man benefited. Early day Louisiana, with its vast stands of virgin timber and almost no agriculture, did not support a high quail population. This bird is a product of "edge", a term used by management men to denote areas where brush or timbered lands meet openings. Virgin conditions presented little of this. The state's highest quail population followed closely on the heels of the loggers. As the timber was cut there sprang up a profusion of legumes, berry-bearing shrubs, and other plants well suited for quail food. Cover was ample, and the bird population soared to an all-time high. It was an abnormal situation that could not possibly have been maintained, but it is the classic example of the ability of quail to increase from native stocks—no matter how low—once food and cover is provided. Within a few years the land, following normal progression, reverted to sedges, wiregrass, and other climax species which produce little or no quail food. The bird population dropped sharply in this type habitat, and has changed little since that time in these cut-over pine lands.

Another activity of man which benefited quail was the small farm. Even the larger plantations were broken up into small farm units, operated by one or more tenants; thus the same effect was achieved. It was an operation characterized by vine and brair covered ditchbanks and fencerows which separated small fields of corn, peas, cotton, and other food-producing row crops. It was an operation foreordained to produce quail, and it did.

Pouring money into hatcheries like this one was as futile as it was expensive. Research both here in Louisiana as well as in many other states has shown that such an operation cannot keep quail populations from declining in the face of such changing land use as is represented by . . .

. . . this cattle pasture. The mushrooming livestock industry in this state can be tied directly to sinking quail populations, as can the growth of "clean farming", the increase in tree plantations and the decrease in the number of tenant farmers. Progress cannot be denied, but we should strive to stimulate practices which will allow at least

"Progress" and a changing economy, however, brought about changes which Mister Bobwhite looked upon with extreme disfavor. Mechanization reared its welcome but ugly head, and the fallow and semi-cleared fields which had been so productive of birds were placed into production of crops. Even this would not have been too bad except that the exponents of "clean farming" blossomed upon the scene at the same time. With the aid of tractors, mowing machines, discs, bulldozers and weedburners, it was possible for the farmer to virtually eliminate the natural quail cover and food. Mechanization in farming methods allowed more rapid spring and fall plowing. This destroyed both food and cover formerly available in fallow and freshly harvested fields during the winter and spring months. Modern farming methods have greatly reduced the need for planting grains and leguminous crops as food for livestock and tenants—crops which were a mainstay of the quail food supply. Last, and certainly not least, the tremendous increase in cattle raising and tree planting in Louisiana have taken much land from quail production.

Accentuating this problem is the manifold increase in hunters along with the decline in quail habitat. These hunters, frustrated by tales of past abundance coupled with personal knowledge of miles of birdless hunting, bring us the question, "Why doesn't the Wild Life and Fisheries Commission do something to help quail?" Let's explore that question.

First, we think we have convinced both you and ourselves of the folly of stocking hatchery quail. At one time even the wildlife biologists felt that such stocking was the answer. At one time doctors cut their patients to let the bad blood out, too; but time passes and knowledge increases. Let's operate in the light of the latest findings, and the findings of the Louisiana biologists in the matter of survival of pen reared quail have been substantiated in many other states. Thus we can dispose of that phase of quail management and turn to more fruitful thinking.

Quail are products of the land and most of the land in Louisiana is in private ownership. If you are an average quail hunter you don't own enough land to hunt on, therefore you are dependent upon the landowner not only to allow you to hunt on his land but to provide a suitable habitat in which quail can prosper. The landowner and the land use methods he employs are the key to quail hunting in Louisiana. The Wild Life and Fisheries Commission cannot possibly invoke intensive quail management practices on enough land to make a dent in the overall quail population. The future of quail hunting depends upon the quail hunter himself. Help yourself by helping the landowner. Don't wait until the day before the season opens to request his permission to hunt. See him months in advance and *work* with him on methods which will improve his land for quail production without reducing his income from crops or livestock. It can be done. Many landowners consider wildlife a liability because of nuisance hunters. It's up to you to conduct yourself in such a way that this feeling won't exist. What can you do for the farmer or landowner in return? Are you, as a quail hunter, willing to work for better quail hunting?

What Can I Do?

First, don't advocate restocking. It is useful *only* where a particular area has NO native breeding stock left and where that area has been improved so that it will now support birds.

Don't blame lack of quail on predation—foxes, cats, hawks, or whatever your pet theory happens to be. The bobwhite has a short life expectancy. Of every 100 birds available in the fall only 20 will survive for one year under average conditions, provided that food and cover conditions remain the same. Closing the season will not reduce this natural turnover. On a study area in eastern Texas quail increased 450% in two years when food and

minimum quail population in
onjunction with modern agricul-
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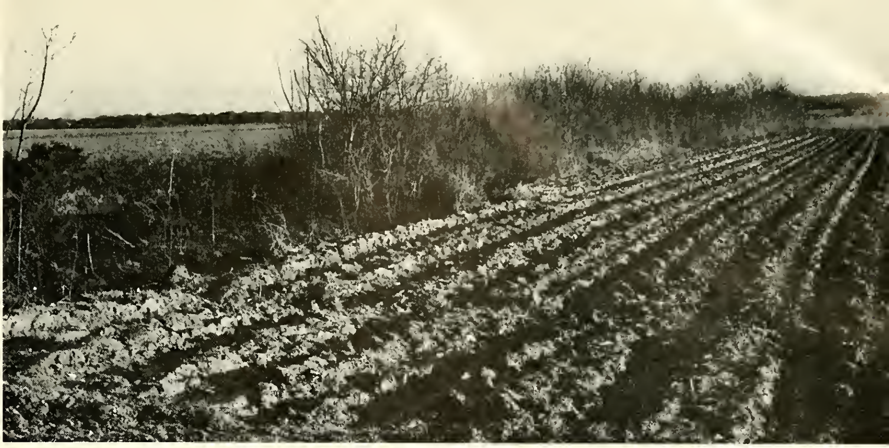
f the land appreciably. A good
xample of such a practice is . . .



. . . this ditch-bank hedgerow. Contrast the escape cover, food, and transportation lane which it affords with the clean pasture fence in the other picture. This one hedgerow probably means the difference between having a covey of birds there and not having one. One pass with a bulldozer up this ditchbank would hurt this particular covey of quail far more than would year-round shooting pressure.

cover conditions were improved, even though no predators were killed.

DO work with the landowner toward improving food and cover for quail. If cover is poor, improve it. If it is lacking, plant it. This is often the case in heavily grazed pasture lands. It is easier to save cover than to restore it once the destruction has taken place. Many landowners would be glad to save a fence corner or stretch of hedgerow in their pasture improvement program if the thought occurred to them. It's your job to make the thought occur to them. Fence rows are being cleared at a cost greater than the possible return. A one-mile fence row could support several coveys, yet if it were eight feet wide it would take only one acre out of pasture or crop production. If a pasture is grazed so heavily that no cover can get started along the clean fence, ask the owner if he will let you put in a double fence for short stretches. Several 25- to 50-foot sections placed parallel to, and 8 or 10 feet away from, the main fence would be invaluable to quail. You will have no difficulty in finding cover areas that can be improved by fencing, fertilization, fire protection, or cultivation. Food conditions can be improved in several ways. For a number of years the Louisiana wildlife department and the Soil Conservation Service have encouraged the widespread use of bicolor lespedeza. A study is now in progress to evaluate these borders, and preliminary results of the study indicate that quail have benefited little or not at all in far too many instances. Bicolor is an excellent plant for intensive quail management, since enough food for a covey can be produced on about one-fifth acre. It must, however, be planted properly, protected from grazing until well-established, and cultivated for a time to get proper results. Where these practices have been followed bicolor borders have produced more quail, but many landowners are understandably unwilling or unable to allot the necessary time to such an operation. They will probably allow *you* to carry out such an operation. Are *you* willing?

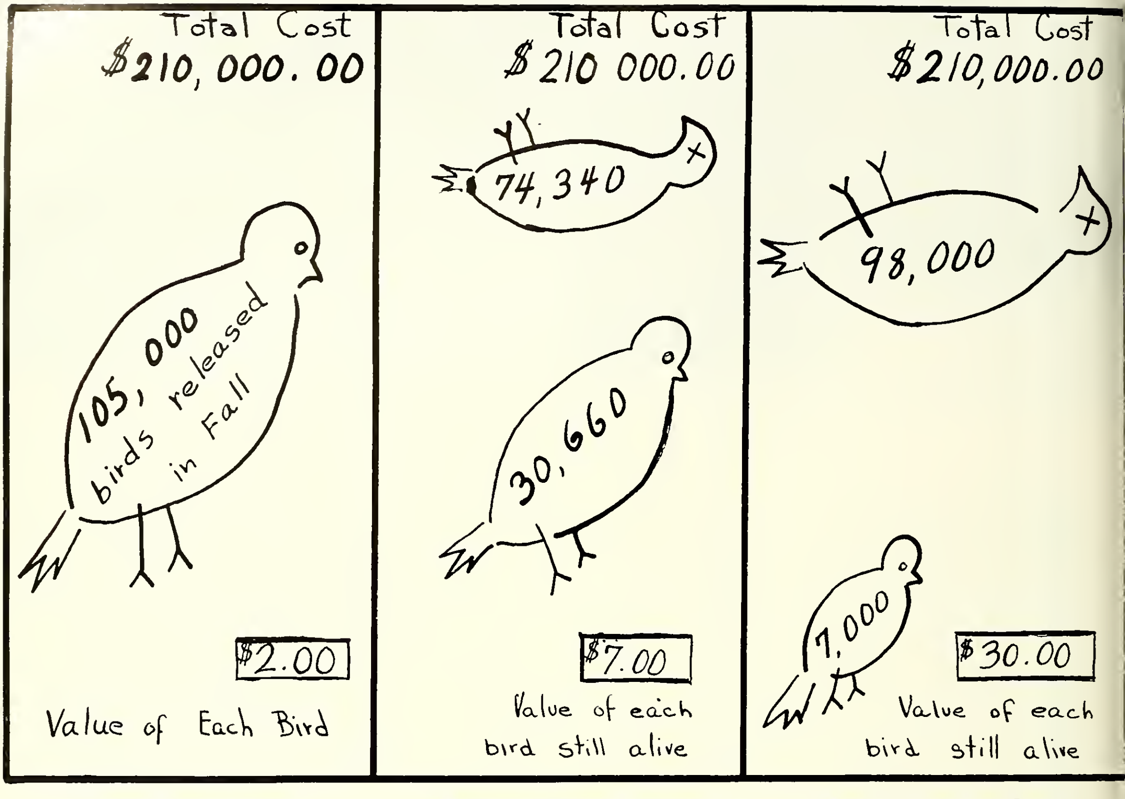
Disking of fallow fields is a practice which has been very successful in producing quail food in eastern Texas. Lay (see references) reports that "the cheapest quail food crop is produced by fallow plowing or disking, except where burning is practicable." Disturbing the soil in this manner usually results in a growth of partridge pea, doveweed (goatweed), the panic and paspalum grasses, and/or ragweed. All of these produce excellent quail food. In addition to odd corners of the farmer's land which might be treated in this way, the right-of-way for pipelines and power lines offers opportunity. Firelanes can be disked to increase production.

These are some of the possibilities. The Louisiana Wild Life and Fisheries Commission is working now to determine which are the most effective and *most practical* methods for increasing quail in Louisiana. It will be up to you to try to place the methods in operation.

The Commission has biologists throughout the state who will meet with you and help in planning for more quail. Contact them through our district offices, listed below:

Alexandria, P. O. Box 1041	3-3680
Baton Rouge, P. O. Box 9055, Univ. Sta.	3-1614
DeRidder, P. O. Box 504	6111
Ferriday, P. O. Box 107	3375
Minden, P. O. Box 224	2815
New Orleans, 126 Civil Courts Bldg.	MA. 1981
Opelousas, E. Landry St.	7848
West Monroe, P. O. Box 308	3-0702

Get together with your quail hunting buddies and find a landowner who will let you work on his land. Once you have shown him you are interested



Time of Release **Start of Hunting Season** **End of Hunting Season**

in doing something for quail instead of merely killing when the season rolls around, I think you'll be surprised at how far he will go toward helping. If you need advice our technicians will go over the land with you and make suggestions.

Let's try to sum up the quail outlook for our state. If you hunted in the 20-to-40-coveys-a-day era of post-logging days, and are looking for a return to that kind of shooting, you're doomed to disappointment. There are some two million acres of cut-over pine lands in Louisiana that we feel offer real opportunities for improvement through disking or *controlled burning*. Wildfire is, of course, just as destructive to game and habitat as it is to forests. The days of the cut-out-and-get-out logging methods are ended; thus we cannot expect the windfall habitat conditions that existed during that era to occur ever again. Modern tree farming for pulpwood virtually eliminates that acreage for quail production. Sawtimber production, in both pine and hardwoods, offers possibilities for quail management without appreciably affecting timber output. Farming and cattle raising methods, as we have indicated above, can be modified to be more compatible with quail without affecting crop or meat production.

Again let us repeat. Quail are a product of the land and the landowner is the key. Are you willing to work toward getting that key to turn in the right direction? *Now* is the time—*not* a week before the season opens. Yes, we can have quail hunting in the future. How good that hunting will be depends upon you.

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FISH CONSERVATION FUNDAMENTALS

Fish Conservation Fundamentals, in 14 parts, was written by Dr. R. W. Eschmeyer. We, as do most professional conservationists, feel that this is the clearest presentation available of the fisheries picture today. We plan to bring to you the entire series in the coming issues. You can get a bound reprint of the "Fundamentals" for 25 cents from the Sport Fishing Institute, Bond Bldg., Washingon 5, D. C.

PART I The General Picture

by Dr. R. W. Eschmeyer

Fish conservation has had an interesting development. Here are some of the major points in its evolution, shorn of the many qualifying statements which would normally be made if space permitted. The evolution is interesting partly because of its uneven development; in some states it has progressed much farther than in others.

In pioneer days, fish were abundant. The land had been only sparsely settled by Indians, and their methods of taking fish were crude and inefficient enough to prevent depletion. So, in the early days there were plenty of fish to serve as a major supply of fresh meat for the settlers. There were no conservation measures. None were needed.

Regulation

In time, there was local evidence of depletion, especially where easily caught spawning runs were harvested extensively. Locally, some regulation of the fishery seemed desirable. Emphasis was on allowing brood stock to spawn. It was felt that there should be closed seasons at spawning time and that the fish should not be taken until they were big enough to have spawned once. There was a tendency, too, to limit the individual catch. The regulations, therefore, involved closed seasons, size limits, and catch limits. The emphasis was strictly on regulation. The laws were imposed by the legal bodies—generally the state legislatures.

Enforcement called for a special set-up, usually consisting of a chief warden and field wardens. These individuals were political appointees. The warden jobs were a welcome addition to those politicos who needed to find a pay check for their faithful campaigners.

Gradually, more and more laws were imposed and more wardens were hired. Since there were no fact-finding programs, the regulations were made more or less arbitrarily.

Stocking

In time, there was a new development. It was found that fish could be produced in hatcheries and rearing ponds. The artificial hatching and stocking of fish fry became a craze. The federal government and the states built more and more hatcheries.

Since fish spawned successfully if given an opportunity, producing fry in rearing ponds was a simple matter. The discovery that trout eggs could be stripped out and artificially fertilized led to a simple procedure for producing trout fly. After very little experience, political appointees could handle the hatcheries. Here, then, were more jobs for the faithful.

The expanded "fish conservation" program called for the spending of considerable sums of money. To pay for the costs of the state programs, anglers were required to purchase licenses. Here the taxation was directly on the "consumer". The income from licenses was generally turned over to the general fund. The legislatures then decided on how it was to be used. Necessarily, the consideration was given to the political values.

The Peaceful Days

Conservation became a simple routine. If sportsmen in a locality became dissatisfied, a load of hatchery fish fry usually lulled them back to complacency. If this wasn't enough, they might be given a few additional cans of fish, or a few new restrictive laws would be imposed. If the anglers were especially hard to please, they might be given an added warden, or a replacement for the warden already on the job! These were the peaceful days of fish conservation. The political appointees had only one major problem—to please the voters. For quite some time they had simple means to that end—more fish fry, more regulations, more wardens.

There was only one thing wrong with the "fish conservation" program—it didn't help fishing! There were harder days ahead . . .

Sportsmen, dissatisfied after a few poor days afield, turned to other panaceas. Some felt that there was too much inbreeding and asking for new stocks. Some blamed the predators, with predator control programs resulting. Almost invariably the anglers wanted any species introduced which were not already present; a program of introducing all sorts of species into all sorts of waters followed. There was argument over which laws should be imposed, leading to the passing of innumerable local laws, imposed by the legislature to please local groups. The regulations became highly complicated.

The political appointees were having more and more difficulty in their one major job—keeping the anglers contented.

Trouble Shooters

Finally, and perhaps in desperation, they employed biologists, usually biology professors who had time to spare from their teaching during the summer months. The biologists served a worthwhile purpose from the start, as troubleshooters. The administrator could restore contentment, momentarily, by sending the biologist to trouble areas, and by indicating to the public that "we are studying the problem".

But the biologists weren't content with the "trouble shooter" role. Typical of their breed, they were conscientious people who wanted to find the answers. In time, they found some. The answers, though, were embarrassing to the administrators. They tended to demonstrate that the methods of "fish conservation" which were in vogue were ineffective. They discovered, more and more, that the medicines in use did not cure the ailment. But they failed to come up with new remedies. It was an embarrassing period for both the biologist and the administrator, as well as for the hatchery man and warden whose products or services were now subject to question.

Meanwhile, the public was inclined more and more to rely on specialists—on doctors, lawyers, engineers, agricultural experts. So, naturally, the public was beginning to place reliance on the trained fishery experts. This led to internal difficulties. The politically appointed administrators, wardens, and hatchery men, who originally considered the biologists with their big words and their devotion to their jobs to be an interesting novelty, now began to think of these specialists as potential competitors for their jobs. The biologists were openly ridiculed. But they stuck to their knitting. In some instances the ridicule was deserved; many biologists failed to recognize the human angle. Some were impractical. Some were obviously deficient in "bedside manner".

The Pasture

Most important was the observation that a lake or stream is really a pasture, with extremely prolific "livestock", and with the rate of growth depending on the amount of food available. It was found that fish needed more than just water, that other conditions needed to be favorable, too. It was discovered that a small fish wasn't necessarily a young fish—he might be an underfed old-timer! The technical fellows learned about food chains; a bass eating small fish which eat insects which subsist on microscopic food isn't equivalent to a sheep eating grass. It's equivalent to a super-predator eating wolves which eat sheep which eat grass. This explained quite clearly why our lakes and streams couldn't be "half fish and half water"! The biologists gradually learned many things, even though they couldn't find a simple answer to the question of how to give "ideal" fishing to all anglers.

Administrators

Meanwhile, the internal feuding led to interesting developments. In some states the political administrators were replaced by other people. Hatchery men were given the top fishery jobs in some states, wardens in others, and biologists in still others. In every instance, some individuals developed a broad viewpoint and did a good job. Others retarded conservation in their states. Today, we have administrators in all these categories.

The political appointee doesn't object to good conservation, but he also tends not to promote it. His main interest is in keeping the voter happy and in hanging on to his job. Since conservation education might lead the public to suspect that he isn't competent, he generally is opposed to public enlightenment.

Some one-time wardens as administrators may tend to over-stress enforcement. They may tend to object to fact-finding, to education, or to change. Some others, of course, may be expected to take a progressive viewpoint.

The fishery administrators who came up the hatchery ladder naturally tend to favor stocking. Some do everything possible to retard progresss; others are doing a good job in the administrative capacity. In several states these men have definitely opposed fact-finding. They may have one or a few trained men on the staff, because of public demand, but the men are held down, and some of their findings are kept from the public. These hatchery men spend most of the funds on more and more stocking. A few even go in for put-and-take warmwater fish stocking, without letting the public know that the cost of raising bass to catchable size in hatcheries is exhorbitant. These "administrators" usually have very limited fish conservation education programs. They don't want an enlightened public for obvious reasons. Where they have been in power for years, the public is usually poorly informed, and even the commissioners may not know that their fishery program is an unenlightened one. The states tend to be backward in fish conservation. As indicated above, in some states the hatchery men, after being made top fishery administrators, keep up with the times and have progressive set-ups.

The tendency is, more and more, to put formally trained fish men in charge of the state fishery programs. These men, trained as biologists, may have trouble in public relations, but in general the programs which they advocate are the most progressive.

In the interesting evolution of fish conservation the need for formally trained fish men is now generally accepted—following the same evolution as we have had in medicine, engineering, and other specialized fields.

The Present Picture

As for the current fish conservation picture, enough is known now to present it rather graphically. Here it is:

1. We have more and more anglers. Fishing pressure increases constantly.
2. A lake or stream will produce only a limited amount of "livestock". The average acre of water in the United States probably supports only about 100 pounds of fish.
3. Of these fish, only a portion are of the size or species wanted by the angler. In many waters the desired fish are in a minority.
4. Of the available supply, only a fraction can be caught. The hook and line is inefficient. This point will be easily appreciated if you try "fishing" for rabbits—baiting your hook with a piece of carrot and waiting (hidden) for a rabbit to take it! On many of our big waters the catch is only a small fraction of the available supply.
5. Because of siltation and pollution, many waters can no longer support as big crops of fish as they once did.

In view of the above observations it's easy to see why the average catch gradually dropped with increased fishing pressure. It dropped to where the average catch was less than one fish per hour, and the average fish was less than ten inches long.

Now, we have growing evidence that fishing is improving. The trained fishery fellows are learning, more and more, how to manage our waters. They are becoming more efficient in handling our fish management tools: (1) stocking, (2) regulation, (3) environment improvement, (4) controlling fish populations, and (5) creating more fishing waters.

To use the tools still more effectively we need more fact-finding and a more enlightened public. Consequently, in those states which are trying to progress rapidly the emphasis is on research and on conservation education. If your state isn't emphasizing these two items, it's not doing a good job.

There are still problems, many of them, but we're now optimistic about the future of fishing in some states. We're less optimistic about some others because they have not yet moved far in their fish conservation "evolution". ★

AACI Conference Held in New Orleans

From May 15 through May 18 the Louisiana Wild Life and Fisheries Commission was host to the annual conference of the American Association for Conservation Information. The AACI is composed primarily of information and education specialists of state game and fish departments throughout the nation. Also in attendance were representatives of the National Wildlife Federation and the U. S. Fish and Wildlife Service.

Headquarters for the conference was the St. Charles Hotel in New Orleans, and about 75 people from 23 states were present. Program chairman was John Blanchard, Chief of the Louisiana Education and Publicity Division, and the highlight of the program was a panel discussion on the value of an information and education program to a state game department. Participating in this panel were several directors and commissioners as well as members of I & E staffs.

Following the conference, more than 30 of the delegates remained for a two-day fishing trip at Grand Isle.

(see page 21 for Conference Program)

Mr. and Mrs. Harry Lutz, Kansas, are registered by Miss Charlene Imhof, Louisiana I&E secretary.

During the conference the planes of the Louisiana Wild Life and Fisheries Commission flew many of the delegates over the marshland.

The panel discussion on "How Important Is Information and Education in the Conservation Field" featured these participants (left to right): La. Director L. D. Young, Jr.; Ohio I&E man Bill Kah; Tenn. Director Hayden Olds; Tenn. I&E man Jim Bailey; Mo. Commissioner Dru Pippin; Iowa Director Bruce Stiles; Kentucky Director Earl Wallace; and Kansas I&E man Harry Lutz.

esident-elect Calhoun sits with his gavel surrounded by some of the delegates.

rom one editor to another: **LOUISIANA CONSERVATIONIST** editor Claude resham removes a Texas-size Spanish mackerel from the line of **TEXAS GAME** **ND FISH** editor Townsend Miller during the fishing trip off Grand Isle following e conference. More than 30 delegates took advantage of the opportunity to see some of Louisiana's coast.

Incoming officers: Vice-president John Blanchard, Louisiana; President Calhoun, Wisconsin; and Secretary-Treasurer Ed Dolder, California.

etiring officers who gave reports at the business meeting on Wednesday morning ere: Ed Dolder, Harry Lutz, Leo Luttringer, Juanita Mahaffey, Jack Dyer, and Rod Amundson.

W. D. Burroughs, Michigan, holds plaque just presented him by Jim Bailey on behalf of the AACI for the best conservation movie of the year (The Michigan Deer Story).

OUR POLICY ON WETLANDS

by L. D. Young, Jr.
Director La. W. L. & F. Comm.

This is the paper presented by the Commission at the hearings recently conducted in Monroe, New Orleans and Krotz Springs by the Corps of Engineers to re-evaluate MRT.

The Louisiana Wild Life and Fisheries Commission appreciates the invitation to appear at this hearing and present its views for consideration in this re-evaluation of the Mississippi River and Tributaries Project. As you know, we are charged by law with the protection, conservation and propagation of our valuable wildlife, fish, and recreational resources for the citizens of this state. In view of previous losses to soil, timber, water, fish and wildlife resources, we urge that advantage be taken of these past experiences. We hope that a new concept will be developed for flood control, drainage and navigation, which does not entirely embody deeper and wider ditches, straighter channels, and increased velocities in the run-off of surplus water, but which is more compatible with the preservation and multiple-purpose use of all of our natural resources.

In general, we believe that future plans should be based on equal consideration for all valuable resources affected, and that these considerations should be rendered according to land and water capabilities for the areas involved. We further believe that, where possible, studies should be made on project areas which will give a comprehensive picture of all anticipated losses and benefits. Damages to any of these natural resources should be charged against the cost of the project. Accordingly, benefits to our natural resources should be included in the cost-benefit ratio. Hence, if the cost of construction cannot be justified under this type of comprehensive appraisement, then that segment of the project has failed in adequate justification.

We request that complete consideration be given to fish and wildlife resources, including their habitat in the early planning and design stages of all segments of the project, and that wildlife habitat be protected during the construction stages of segments of the project.

In securing flowage or other easements where fifty per cent or more of the actual land value is paid, we strongly recommend the acquisition of these lands and their dedication as public game and fish management areas, as provided for in the original authorization of the Flood Control Act of 1928. In cases where large acreages of wetland or forest suitable for recreation and wildlife management are involved but which cannot be purchased solely for this purpose, it is recommended that public access and use of the area or any part thereof (e.g., borrow pits, waterfowl areas) be retained in the agreement. This is not to be construed in any way to apply to valuable farm land or the curtailment of normal land management procedures of the landowner.

There should be some provision for the development of fishing and hunting opportunities. Tops of levees could be provided with all-weather roads with turn-outs for use in public access to areas as well as ease of levee maintenance. Lakes formed by channel alignment or existing lakes should be retained and plugged with some means (e.g., low-level water control structures) of reintroduction of river water into them. Accordingly, in the development of impoundments, low-level outlet water control structures should be included.

In addition, borrow pits along the main levees should not be drained unless levees are actually endangered, since these bodies of water provide some of the best fishing in the nation.

We have been requested a number of times to re-establish fishing opportunities in waters cut off by levees and guide levees which have become stabilized and/or clogged with aquatic vegetation in the absence of overflow backwater conditions. Examples of this are many, some of which are Lake Verret and the Henderson Landing area in the West Atchafalaya system. There should be an alignment or location of structures to avoid utilizing or draining or damaging existing bayous, lakes, and/or streams valuable to fish, wildlife, and other natural resources. Where there is a destruction of game and waterfowl habitat by drainage, adequate additional nearby lands of equal value should be provided as public wildlife management areas to offset the losses. Also, it would be desirable to provide for sub-impoundments and water level manipulation on the suitable tributaries of large canals, as well as spoil deposition according to the recommendations of our biologists. A good example of where biologists could make use of spoil banks is along the Amite River diversion canal, to create a sub-impoundment for waterfowl management. Such measures as these would be a means of replacing or even enhancing by appropriate developments opportunity losses. In the construction of levees, they could be placed distant from the stream to allow for normal overflow areas such as borrow pits. In summation of these points, we believe there should be a proper mitigation of losses to fish and wildlife resources.

Certain areas of high fish and wildlife potential or of outstanding fish and wildlife value should be recognized as such and maintained. These areas should be preserved from devastation by flood control, drainage, navigation or other uses of less value on a comparable high production basis. Catahoula Lake and Red River backwater area must be maintained, as should smaller areas. Dedicated floodways should be maintained for the benefits of overall flood protection and associated wildlife and fishery values.

It is requested that a study or utilization be made of means of reducing siltation of the state's waters, and that this be incorporated in all plans for the project; likewise, that a policy of selective clearing of brush and trees along stream banks be utilized where at all possible.

Realizing that municipal, industrial, and other needs for water is of the utmost importance, as well as dilution where pollutants are involved, it is further recommended that due consideration be given to the adequate retention of surface waters for maximum multiple-purposes uses, rather than complete planning for a rapid run-off.

Evidence indicates that all marginal and submarginal lands are not suitable for conversion to agricultural uses. Accordingly, certain agricultural benefits should not be claimed in the preparation of cost-benefit ratios. In addition, all landowners do not necessarily plan or want to clear such areas on their lands. Entire areas of this type, valuable for fish and wildlife resources, should not be subjected to drainage for the possible benefit of a relatively few acres of doubtful long term value agricultural needs. We recommend providing a place in the overall plan for utilizing natural sump areas, such as overflow backwater areas and cypress-tupelo gum breaks which are valuable fish and wildlife areas, for absorbing large volumes of excess waters following periods of heavy rainfall.

As the Mississippi River and its distributaries approach the Gulf in Louisiana it passes through an extensive marsh and delta area which is geologically unstable and constantly changing. Under natural conditions, distributaries allowed the waters to pass slowly down to the Gulf through tortuous and meandering channels into the bays and then on into the Gulf. This afforded an opportunity for the nutritious fresh waters and the saline water of the Gulf to mix thoroughly, forming an optimum brackish water environment. Furthermore, the meandering nature of the currents through the distributaries and bays created around points and bends conditions for the development of highly productive oyster and related fishery communities. Through this natural geological process, Louisiana was blessed with thousands of acres of highly productive water bottoms and associated fur producing marsh lands. Although the geological process is obvious and relatively slow in comparison with man's life span, the area is yet unstable enough to react rapidly to the activities of the various construction practices which have been carried out in the area in recent years. For example:

1. Leveeing and cutting off the distributaries from Donaldsonville to the Gulf has drastically reduced or entirely stopped the previously existing natural charges of fresh water and nutrients from the Mississippi River to the bayous and bays of the marsh country. This has resulted in a tremendous reduction of fisheries production in these waters.
2. Conversely, the dredging of ship channels to the Gulf and smaller navigation channels has allowed for an excessive amount of salt water intrusion from the Gulf with certain tidal conditions, has reduced the amount of thorough mixing of fresh and salt waters, and has changed the rate of fluctuation both in the bays and in the marsh.
3. The realignment of channels by means of canals has rapidly obliterated numerous productive oyster areas associated with points and bends formerly evolved through this gradual natural geological process.
4. The dredging of straight channels through bays has resulted in siltation of many areas to the point that navigation must be confined to the channel, thereby virtually destroying the area for navigation of a commercial fishing nature.

To avoid these effects, we recommend the following measures:

1. That there be full interagency coordination on each project, allowing adequate time for study, evaluation, and determination of possible losses and benefits.
2. That the Corps of Engineers or other construction agencies should furnish with their project plans adequate hydrographic data dealing with the probable expected changes in existing currents, water fluctuation, salinities, and siltation, as a result of the project.
3. That, in view of the fact that considerable damages have occurred in past years, all contemplated structures dealing with water control be designed for multiple purpose use regarding adequate supplies of water to bayous, bays, and marshes.
4. That, in view of losses sustained in the past and to alleviate these conditions, specific structures

be designed to furnish fresh water to depleted areas.

Recreation is of basic importance to society. Hunting, fishing, boating and swimming offer more opportunities for individual and group participation for more years of a lifetime than any other sports. Not only is the sport aspect important, but also the food value gained is of considerable significance. Records indicate that there has been a sharp increase in the number of licensed hunters and fishermen in the past fifteen years. Therefore, greater demands are being made on the remaining areas.

In conclusion, we would like to express our interest in working and cooperating with all interested groups. It is evident that we propose wise, multiple-purpose land and water uses according to their capabilities, as well as the proper public utilization of areas where public monies are spent. We are opposed to developments based on expenditures of public funds out of proportion to overall public benefits.

We request that the amended Coordination Act of 1946 apply to all segments of the project on which construction has not begun.

Furthermore, we request that construction agencies consult with the various interested agencies to arrange dates and hearing sites for public hearings mutually convenient to all expected to participate in the hearing.

Finally, we ask that these recommendations be made an integral part of the body of the report to the Congress, including the exact form of presentation without editing.

We stand ready to cooperate with the Corps of Engineers in the ensuing two years' study and to integrate the program we have developed with that of the Engineers to evolve a truly comprehensive multiple-use plan for our natural resources.

We request that the Corps recognize the plans submitted by the Fish and Wildlife Service for all projects, especially the Catahoula and Red River backwater area, and that these plans be included in the report made to Congress, including the cost for mitigating damages to fish and wildlife. ★

GIVE-AWAY OF WILDLIFE REFUGES STARTS

Give-away of important parts of the national wildlife refuge system, which seems to be in the pattern of the present Administration, is underway, according to the Wildlife Management Institute. On May 25, a meeting will be held in Las Vegas, Nevada, between officials of the U. S. Fish and Wildlife Service and the Nevada Fish and Game Commission to determine the fate of the Desert Game Range, the home of a remnant band of desert bighorn sheep. Nevada game officials have advocated the elimination of the national wildlife refuge in order to open the area to public hunting. Desert bighorn rams of trophy size outside the refuge have been eliminated in the past three hunts that were authorized by the state.

A couple of members of Congress, who ordinarily are good conservationists, are supporting this move and may attend the meeting. Reappraisal of the federal refuges established primarily for resident non-migratory game was advocated in the Interior Survey Team report last June, and the move is known to have the active support of three of the five regional directors of the U. S. Fish and Wildlife Service. The disposal of such refuges can be effected by the Secretary of the Interior with a stroke of the pen.

Also involved and due for discussion at the forthcoming meeting is the Stillwater National Wildlife Refuge near Fallon, Nevada. Strong pressures also are being brought against the Secretary of the Interior to reduce still more the size of the Tule Lake and Lower Klamath Refuges along the California and Oregon line; to transfer the Lake Lenore National Wildlife Refuge in Washington and the Sheldon and Hart Mountain National Antelope Ranges in Oregon and Nevada, to the States.

The Survey Team which examined the operations of the Fish and Wildlife Service last year recommended that the importance of these areas be re-evaluated by the new director of the Service. The re-assessment is being made, however, by regional directors who obviously are interested in getting rid of a few routine administrative headaches by disposing of or reducing the size of the federal holdings under their authority.

These local pressures are not restricted to the far west. The Moosehorn National Wildlife Refuge in Maine is in jeopardy, as is the Wichita Mountains Wildlife Refuge in Oklahoma, and the Cabeza Prieta Game Range and Kofa Refuge Unit in Arizona. Threats against the refuge system are coming from every quarter, from military agencies to selfish personal interests.

Congressman Lee Metcalf (Montana) recently introduced a bill, H.R. 5306, which would require prior Congressional approval on the disposal of any segment of the federal refuge system. The bill was referred to the House Committee on Merchant Marine and Fisheries, and Chairman Herbert C. Bonner (North Carolina) is receiving requests from conservationists from all parts of the country to schedule an early hearing on this bill.

Secretary of the Interior Douglas McKay, Assistant Secretary Orme Lewis, and regional directors of the U. S. Fish and Wildlife Service Leo Laythe, Portland, Oregon, and John Gatlin, Albuquerque, New Mexico, are receiving strong statements from conservationists from far and wide in opposition to these proposed give-aways of the refuge system. ★

ESCHMEYER DIES

Dr. R. W. Eschmeyer is dead. He died of a heart attack at his home in Arlington, Virginia on May 21.

With the passing of Dick Eschmeyer the sportsman in general and the fisherman in particular have lost one of their staunchest friends. He was a man dedicated to improved fisheries management, and there is no doubt that his impact on this field has been the greatest of any single person. Esch had the knowledge of fisheries management techniques, the ability to get that knowledge across through the spoken and the written word, and the don't-give-a-damn disregard for convention that permitted him to speak the truth as he saw it. Few men are so endowed—I know of no other. With this peculiar combination of attributes Eschmeyer was able to achieve giant strides in fisheries management where we lesser lights would have had to crawl. A good case in point occurred when he was in Shreveport to speak to the Louisiana Wildlife Federation convention year before last. He minced no words in criticizing the city's management of fishing in Cross Lake, the city water supply reservoir, even though he was lavish in his praise of Shreveport in general. That criticism was not malicious; it was constructive. Esch was ever impatient with inefficiency, most of all with his own. He never thought he was accomplishing enough. Such is the mark of greatness.

Although primarily a fisheries man, Dick Eschmeyer did not limit his efforts to fish management. Many people think that his greatest contribution to resource conservation is the series of 10 books on conservation written for children. Nobody questions the fact that they are the best such books available, and their subjects cover many game species as well as fish.

Eschmeyer was a member of the Fisheries Advisory Council, a group of six of the country's outstanding fisheries biologists formed more than two years ago by the Commercial Seafoods Division of the Commission. This Council met annually in New Orleans to study, discuss, and offer advice about the fisheries program of the Louisiana Wild Life and Fisheries Commission.

Dr. R. W. Eschmeyer was a native of Ohio. He graduated from Heidelberg College, and received his master's and his doctor's degrees from the University of Michigan. For eight years he was associated with the Michigan Institute of Research at Ann Arbor. For the following twelve years he was in charge of fisheries work with TVA. His studies there led to the discarding of closed seasons on TVA waters and to the acceptance of "liberalized fishing". Since 1950 Dr. Eschmeyer had been executive vice-president of the Sports Fishing Institute, an organization dedicated to improve sport fishing. He has been a constant advocate of fact-finding and fish conservation education as the basis of a sound program.

Eschmeyer's books for children were printed by the FISHERMAN PRESS, which also publishes the FISHERMAN magazine. George Fichter, Editor of the FISHERMAN, worked closely with Eschmeyer on the books and other projects, and parts of a recent letter from him are worth printing:

"Louisiana is good country. We'll be back one of these days, and the next time I won't try to hurry home to get to work. The work can wait.

"That take-it-easy attitude is most prevalent in my mind this morning because of the two telephone calls which I just had. The first, from Dick Stroud, told me that Dr. Eschmeyer had died of a heart attack last night in Arlington, his home. The second was to ask me to be a pallbearer at the funeral. Doc and I have worked very closely these past few years. Hardly a day went by without a letter or note from him—and sometimes two. We talked about this happening to him if he continued his pace, and we agreed that he should fish more and worry less about telling other people to fish. But I don't think it ever occurred to either of us that it would ever really happen to him—so soon.

"He worked too hard. He loved to work, but he wasn't tolerant. The last letter from him said, 'I feel the need of a fishing trip. . .' And so maybe that's where he went, in a way." ★

Johnny Smith, Baton Rouge, holding wild turkey he killed in St. Helena Parish this April.

Dewey Martel and Joseph LeDoux, of Eunice, with seven gars ranging from 50 to 85 lbs., all caught on the same day in canal near Sweet Lake.

Mike Barnett, seven years old, holds fish he caught in Workman Bayou in July, 1954.

Pictures from Our Readers

Thirteen-year-old Stan
Halpin, Jr., of Lafayet
with limit of French duc
he killed in the rice fie
of Vermilion Parish.

Pheasants killed by Percy Alleman and Paul Richard, of Norco, on a trip to Hazlehurst, Miss., during the 1954-55 season.

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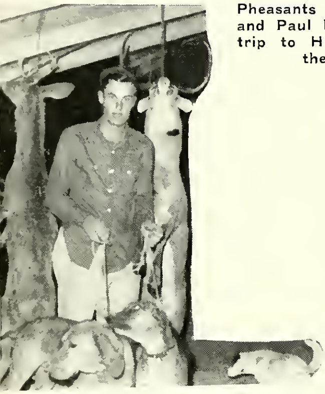
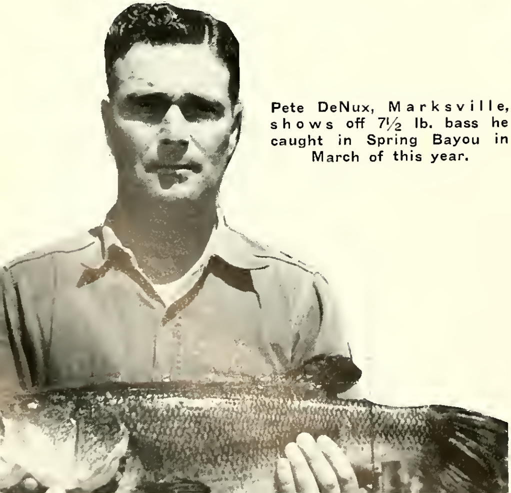


Charles Cockerham, Pioneer, stands between two deer killed by himself and a friend last season.

Vic Myers (left) of
200-lb., 8-point buck
Concordia Parish



Pete DeNux, Marksville, shows off 7½ lb. bass he caught in Spring Bayou in March of this year.

Mrs. Clyde Lowry, David McLemore, Mrs. J. W. McLemore, and Sue McLemore, all of Winnsboro, with string of white perch caught in Lake Bruin in April.

Percy Allema
proudly displ
and other offi
Allema

Oscar Self and J. V. Cockerham of Pioneer displaying deer killed by a friend.

Paul and Tom Lacroix, of Covington, after a successful dove hunt made in December, 1954.

me cleaning platform at dock of Norco Duck Club.

Frank Tramonte with bass caught in Blind River near Lutcher.

Shelton Pollet and Joe LeSaicherre, of New Orleans, with limit of ducks killed in November, 1954, below Lake Borgne.

J. E. Barnes, Downsville, with a 7½-lb. bass caught in a pond in Lincoln Parish recently.

—Photo by Herring

←

Charles and Gene Chandler, of Bentley, with 2 barfish caught in Big Cree below Fishville in April.

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n

Mack Barham of Bastrop with 15 bass he caught in Bayou Bartholomew recently, using a casting rod and River Runt.

Limit of rabbits killed east of Abbeville last season by Stanley Halpin, of Lafayette, with the aid of his beagles, Shaky and Joe.

ton Payne, Norco,
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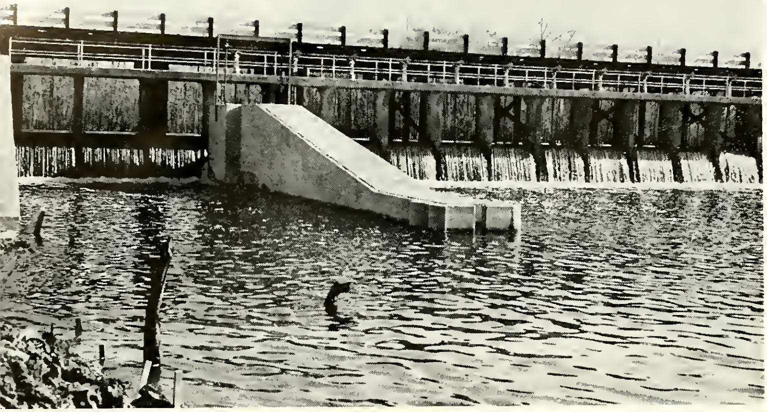
arsh Duck Club on
last season.



The completed fish way at Lake Bistineau as seen from the lower pool.

LOUISIANA FISH WAYS

by Harry Schafer and Don Geagan

Photographs by the authors

During the spring of the year large concentrations of fish are noted below the spillways of many of the lakes in Louisiana. Because of this, a study of the two existing fish ways in Louisiana was begun to determine their value as a fish management tool. In Louisiana the two fish ways or fish ladders in existence are at Lake Bistineau, in Bossier Parish, and on the spillway of Chicot Lake, which is located in Chicot State Park, Evangeline Parish. Both of these fish ways operated for the first time in 1954. The following is a report covering their first season of operation:

Chicot State Park Fish Way

The fish way at Chicot was constructed by the Louisiana Park and Recreation Commission. It is located on the spillway proper and is 110 feet long and four feet wide. The slope of the structure is one to ten feet. The inside of the fish way consists of a series of permanent cement baffles placed alternately on each side of the structure. The purpose of these baffles is to slow down the flow of water and to create calm areas where the fish may rest. The flow of water through the fish way is controlled by a gate which may cut off the flow completely. At the upper end or top of the fish way in the lake proper, a trap which catches any fish using the ladder is placed in order that the Commission's biologist may determine exactly what type of fish and how many of each specie are using the way. This trap is of such construction that fish entering it cannot return back down the ladder or enter the lake. Last spring the trap used was built of wood and enclosed with one inch chicken wire. It was noted that a considerable number of small fish which used the fish way were able to pass through this size mesh. In order to correct this situation this season, the trap has been equipped with one-half inch mesh hardware cloth.

The operation of the fish way was under surveillance during the period of May 21, 1954 through June 11, 1954. During this period the trap was raised and contents were examined one to three times daily.

All of the fish caught in the trap were identified, measured, and counted. The rough fish were destroyed, while the game fish were released into the lake. The game fish which were large enough were tagged with a metal strap tag which was attached to the gill flap. Each tag had "LA WLF" stamped on one side and a number on the other. Anyone catching a fish with such a tag should send the following information to the Louisiana Wild Life and Fisheries Commission: Date caught; kind of fish; locality where caught; tag number; length and weight of fish. The Commission's biologists will then write and tell you when the fish was tagged and the size of the fish at the time of tagging.

During the period in 1954 when the fish way was under observation, 198 game fish and 70 rough fish were counted. The species of fish included largemouth black bass, bluegill bream, redear bream, black crappie, channel catfish, buffalo fish, carp, gar and shad. The species of fish which were tagged include largemouth bass, bluegill bream, redear bream, black crappie, and also two buffalo fish. A total of 65 fish were tagged.

It is intended that a thorough and complete check be made on this structure during the spring of 1955. The period of operation will start in March this year and will continue either until the level of the lake drops, prohibiting the flow of water over the fish way, or until the fish stop using it.

The following number of fish used the Chicot fish way during the period of observation:

CHART NO. 1

Specie	No. of Fish	% of Total	Size groups
Bluegill Bream	164	61.2%	3.0" — 9"
Redear Bream	4	1.5%	3.5" — 5.75"
Black Bass........	24	9.0%	7" — 12"
Black Crappie......	6	2.3%	5" — 7"
Channel Cat.......	1	0.4%	13.5"
Buffalo	33	12.3%	3.5" — 10"
Carp	2	0.7%	11" — 11.5"
Gar	2	0.7%	18¼" — 20"
Shad	32	11.9%	4" — 6"
TOTAL........	268	99.9%	

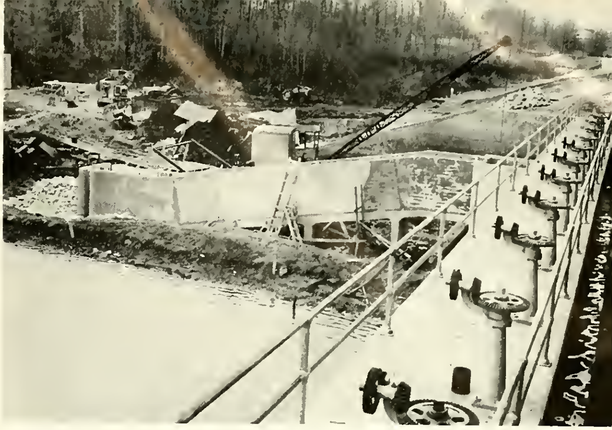
The following number of fish were tagged during the operation of the fish way:

CHART NO. 2

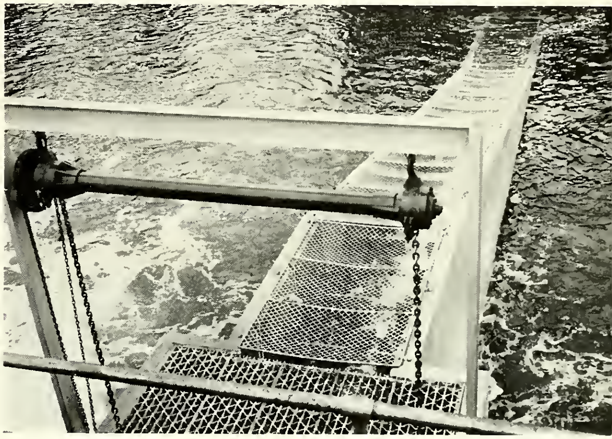
Species	No. of Fish Tagged	Minimum Size
Largemouth Bass..........	7	9.75"
Bluegill Bream...........	49	5"
Redear Bream............	1	5.75"
Black Crappie............	6	5"
Buffalo	2	9"
TOTAL...............	65	

The fish way at Lake Bistineau, built by the Department of Public Works from a special appropriation, consists of a concrete chute 58 feet long and four feet wide inside diameter. The chute is on a one-on-five slope—a one-foot drop to every five feet in length—and contains 17 removable plywood baffle plates. These plates form cross currents which aid the fish in his swim up the fish way. At the upper end of the chute on the lower pool side of the fish way is a fish trap which contains a six-foot-square basket made of expanded metal grating. The mesh of this grating is approximately 1½" x 3½". (Fish less than four inches could not be kept in the basket.) When this basket is lowered into the trap, fish may swim up the chute and into the basket. They are then held there until released by the operator. When the basket is raised, the fish may swim up the chute but cannot enter the trap. Water will flow into the chute until the water in the upper pool is three feet below spillway level. The water will not flow when the baffle plates are in the place if the water is less than two feet below spillway level in the upper pool.

The gates to the fish way were opened March 1, 1954, and periodic checks were made. On April 10 fish were found in the fish trap for the first time. From this time on, the fish basket was raised three times daily at 6:00 a.m., 12:00 Noon and 6:00 p.m. Records were kept of the amount of water going over

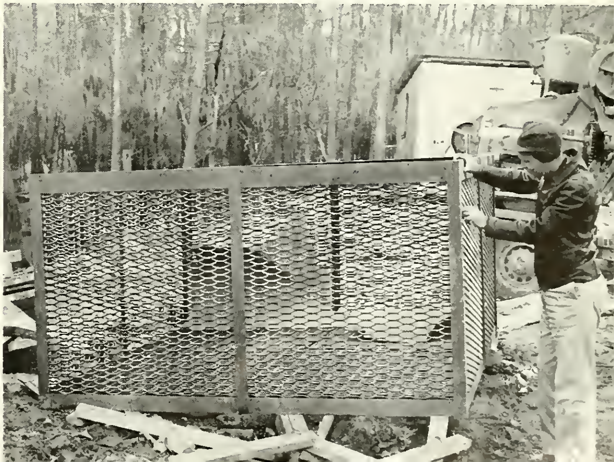


The Bistineau fish way under construction. This is built with a 5:1 slope, one foot drop for each five horizontal feet.



The turbulence of the water inside the fish way can be seen here. The chain hoist in the foreground raises the fish trap.

The fish trap which is raised and lowered by the chain hoist shown above. Fish may enter the basket when it is in lowered position and remain there until they are removed. Mesh is 1½ x 3½ inches.



the spillway and the weather conditions. All the bass and some of the bream were weighed, measured and tagged before being released into the lake. A number of non-game fish were tagged to ascertain if they used the fish way more than once. These fish are taken from the trap, tagged, and returned to the lower pool. None of these fish appeared in the fish trap the second time. Approximately 600 fish of all kinds were tagged, and as of this date three tags have been returned. One bass had traveled a minimum of 15.5 miles. Notes were made of the number of fishermen by the spillway and the species that they were taking. Their creel most often consisted of the goggle eye (warmouth bass), and it was interesting to note that not one of these fish appeared in the fish trap. The month of June appeared to be the best month for the movement of game fish, and the middle two weeks were the best for the month of June. It appeared that after a heavy rain all fish stopped using the fish way for at least 24 hours. From the tables that are included in this section it will be noted that of the total number of fish, 26% were game fish and 74% were non-game fish.

On several occasions dead fish were found under the basket in the trap. The only way these fish could enter this section is by coming from the lake into the conduit that supplies the trap with water. The only species that caught in this place were the carpsucker and the gaspergou. On three occasions, the lock on the grating over the fish trap was broken, and when the basket was raised no fish were present.

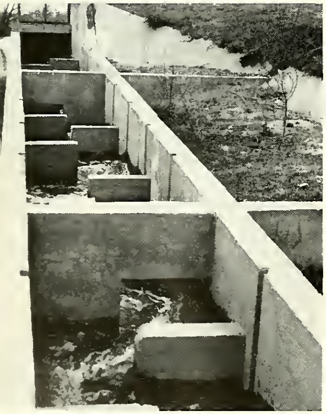
There were several changes and repairs to be made on the fish way last winter so that more experimental work may be done this spring. ★

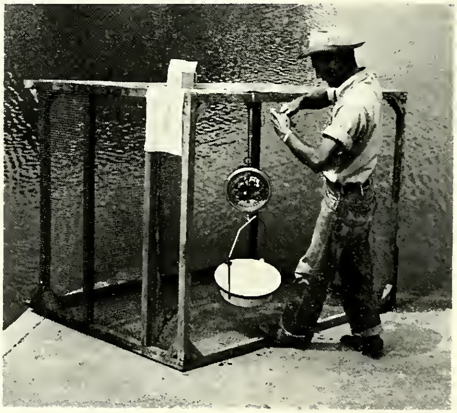
Number and percentage of species using Lake Bistineau Fish Way:

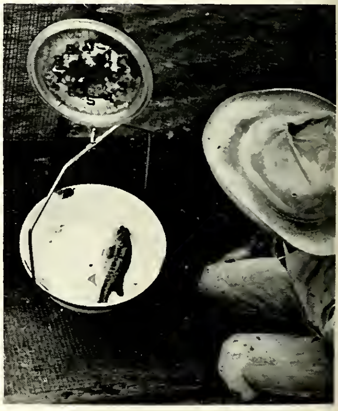
Specie	No. of Fish	% of Total No.
Gaspergou—*Aplodinotus grunniens*	2599	54
Carpsucker—*Carpiodes carpio elongatus*	808	17
Redeared Bream—*Lepomis microlophus*	767	16
Bluegill Bream—*Lepomis macrochirus*	241	5
L. M. Black Bass—*Micropterus salmoides*	248	5
Blue Cat—*Ictalurus Furcatus*	55	1
Gizzard Shad—*Dorosoma cepedianum*	23	0.5
Crappie—-*Pomixis nigro-maculatus* *Pomixis annularis*	14	0.3
Spotted Sucker—*Minytrema melanops*	6	0.1
Opelousas Cat—*Pilodictis olivaris*	2	..
Gar, Spotted—*Lepisosteus productus*	1	0.2
Striped Bass—*Morone interrupta*	1	..
Bar Fish—*Morone chrysops*	...	..

Number and percentages of Game and non-game fish using Lake Bistineau Fish Way.

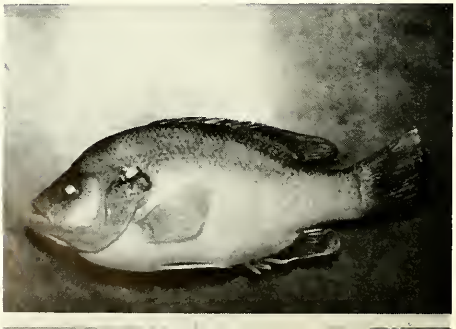
	Total No.	% of Total No.
Game Fish	1270	26%
Non.game Fish	3495	74%
Total	4765	100%


View showing the baffles in the fish way at Chicot. The ladder at Bistineau has a similar arrangement.


The trap from the Chicot fish way. It is raised and lowered manually. The operator here is tagging a fish for release.


Weighing bass taken from trap at Lake Chicot. It is tagged and released.

Applying a gill flap tag to a bream with the special pliers used.


Closeup showing the small metal tag fixed to the gill flap of a nine inch bream.

Fish in trap at Lake Chicot in Spring, 1955 (not included in data for this article).

NEW ORLEANS TO BE HOST TO 21st NORTH AMERICAN WILDLIFE CONFERENCE

New Orleans is to be the site of the 21st North American Wildlife Conference, which will convene March 5, 6, and 7, 1956, in the Jung Hotel under the sponsorship of the Wildlife Management Institute. Although several previous North American Wildlife Conferences have been held in the central part of the nation, this is the first to be slated for New Orleans.

The hotel management has assured the Institute that an adequate number of rooms will be reserved for conferees both at the conference headquarters, the Jung Hotel, and at nearby hotels. A wide selection of rooms will be available to meet the individual needs of conference participants.

All phases of the restoration and wise management of renewable natural resources will be discussed by outstanding authorities at the 21st North American Wildlife Conference. Major conservation issues will be discussed in three general sessions, while the important technical advances in the field of natural resources management will be covered in six technical sessions. The technical program, as in the past, will be formulated by The Wildlife Society, and its president Justin W. Leonard, has appointed John S. Gottschalk, assistant chief, branch of federal aid, U. S. Fish and Wildlife Service, to represent the Society as chairman of the technical sessions program.

The international North American Wildlife Conference is held each year in a major city and is attended by natural resources administrators, biologists, outdoor writers, and sportsmen from all over the country.

AACI Conference Program

(Concluded from page 11)

President Leo Luttringer opened the conference Monday morning, and the group was welcomed to Louisiana by Victor Schiro, President of the New Orleans City Council, and by L. D. Young, Jr., Director of the Louisiana Wild Life and Fisheries Commission. Other features of the three-day session were: "The Value of Public Relations", by W. McFadden Duffy, Publicity Director, International House; "A Free Lancer Looks at I & E", by Bud Jackson, Field Director, National Wildlife Federation; "The Impact of Television", by Mel Leavitt, Sports Director, WDSU-TV, New Orleans; "The Success of Tennessee's Television Venture", by Don Pfitzer, Tennessee Game and Fish Commission; panel discussion on the "Purpose of the AACI Annual Conference", panelists Juanity Mahaffey (Oklahoma); Leo Luttringer (Pennsylvania), Ed Dolder (California), and Eddie Finlay (South Carolina); "Radio—How We Can Use It", by Wilbur Stites, Illinois Department of Conservation; "Are We Reaching the Right Audience?", by Ken Thompson, Montana; "Is Youth Education the Answer?", by Earl Wallace, Director, Kentucky Dept. of Fish and Wildlife Resources; "The Role of Game Departments and National Magazines", by George Fichter, Editor, FISHERMAN magazine; panel discussion on "Photography and Equipment Care", panelists George Purvis (Arkansas), Jack Dermid (North Carolina), and Don Wooldridge (Missouri); panel discussion, "Is Our Magazine Money Well Spent?", panelists Con Tolman (Colorado), William G. Kah (Ohio), and Rod Amundson (North Carolina); "Pre-planning the Conservation Film", by Harold W. Clover, Production Director, Maytag Productions, Kansas City, Missouri; panel discussion, "How Important Are Information and Education in the Conservation Field?", panelists L. D. Young, Jr., Director, Louisiana Wild Life and Fisheries Commission; Earl Wallace, Director, Kentucky Dept. of Fish and Wildlife Resources; Bruce F. Stiles, Director, Iowa State Conservation Commission; Hayden Olds, Director, Tennessee Game and Fish Commission; Dru Pippin, Missouri Commission Member; Harry F. Lutz, Publicity Director, Kansas Fish, Game and Forestry Commission; Bill Kah, Ohio, and James L. Bailey, Tennessee. ★

No Charge for Magazine

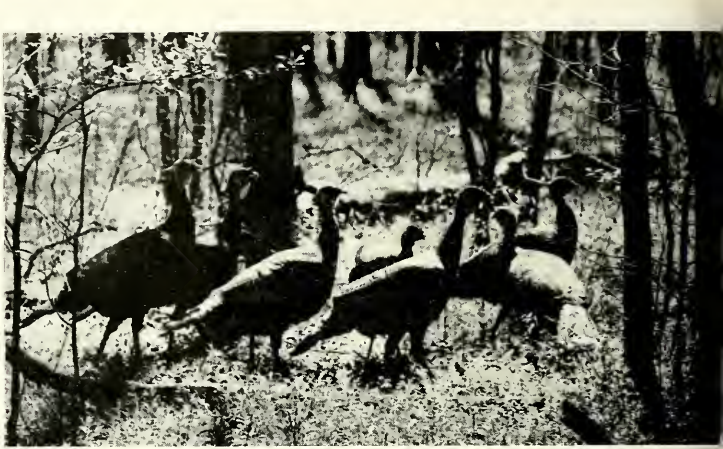
The LOUISIANA CONSERVATIONIST is the official publication of the Louisiana Wild Life and Fisheries Commission. It is published ten times a year, and the press run for this issue is 39,000. There is no charge for the magazine. It will be sent free on individual request which should be addressed to: LOUISIANA CONSERVATIONIST, Circulation Department, 126 Civil Courts Bldg., New Orleans.

anger Captain Jim Parker, Tallulah, monstrates a turkey "yelper". These are often made from a wingbone.

Another type of turkey call, a piece of slate and a scraper made of wood.

W. T. Callihan, of Baton Rouge, brings home the "bacon" from St. Helena parish.

Luther J. Reynolds, Kentwood, crouches in his blind and cautiously pulls his scraper across the box call.

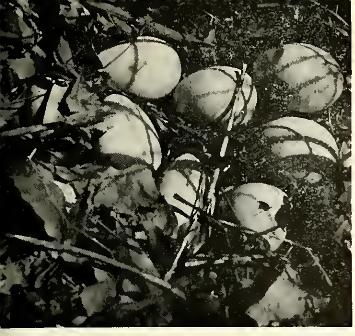


Magnificent sight. Flock of ten with gobbler in the lead.

TURKEY HUNT RESULTS

The six day open season on gobblers which was held April 1-6 furnished sport for a lot of hunters at very little expense to turkey populations. This was the consensus of opinion of the rangers and biologists of the Louisiana Wild Life and Fisheries Commission following the first turkey season in the state since 1948. Many hunters turned out in quest of the big bird but their efforts were hampered during the first half of the season by rain and high winds. The inexperience of most of the hunters at this game also contributed to the low kill. Many were the nimrods who came out of the woods muttering about being outwitted by the big gobbler. There were probably just as many who kept quiet.

Although an accurate check was impossible, estimates place the state kill at fewer than 100 gobblers. Most of the successful hunts occurred in Madison, Tensas, and St. Helena parishes, with Livingston and Washington parishes lagging far behind. St. Tammany, the last of the six parishes which were open, reported no kills. Field men in all open areas reported no scarcity of turkeys and fresh turkey sign within a week following the close of the season, indicating that the population was not hurt.



Photographer Britt "shot" this clutch of nine turkey eggs in Tensas parish a few days before the season opened. Since the eggs are fertilized and nesting well under way, taking gobblers at this season hurts the population little.

Photographs
by
Jack Britt

(unless otherwise credited)

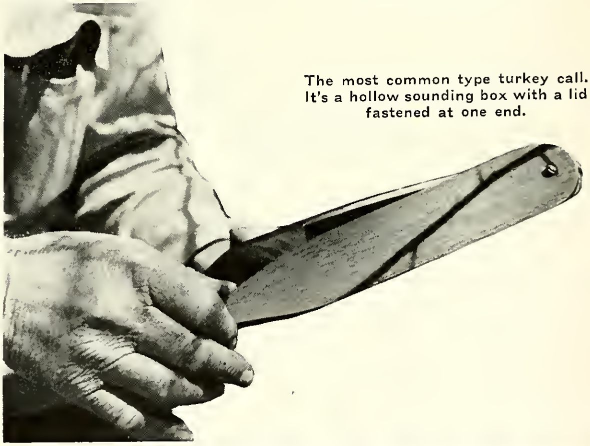
The biggest gobbler reported was the 24 pounder killed by S. T. Bradley, of Delhi, on the Sharkey Plantation in Madison parish. Other birds weighing 20 pounds or more were reported killed in Livingston parish by M. L. Breland (Pine Grove), Sam Dawson (Amite), and B. S. Bell (White Castle); in Madison parish by Charlie Sikes (Delhi); and in St. Helena by Henry Wall (Springfield).

Most of the unsuccessful hunters vowed that they'd be back next spring with blood in their eyes, a better turkey call, and more ability to use it. —C.H.G.

—Photo by Blanchard

Wet but happy is the son of Tensas parish ranger Bill Poe, who holds a 19 pound gobbler which he killed.

Callihan is congratulated by Louisiana's chief executive, Gov. Robert F. Kennon, who hunted in the same area but failed to get a shot.



The most common type turkey call. It's a hollow sounding box with a lid fastened at one end.

A turkey flock in full flight—running, that is. These birds are very reluctant to fly and are incredibly fleet of foot.

How Fast Is A Fish?

by **David Gunston**

Reprinted from
THE FISHERMAN MAGAZINE

Anglers frequently fall into the error of over-estimating the speeds of fish. The reel screams out its line, the captive struggles mightily and plays cunningly, and all the time appears to swim about faster than is actually the case. Nevertheless, there are many kinds of fish which can put up a good speed, even when not hooked, and the subject of fish speed is a fascinating one. To begin with, no creatures are such masters of their natural element as fish, not even birds, with their apparently effortless soaring and gliding. A fish can remain motionless for as long as it likes; it can move forwards or backwards at an imperceptible degree, it can spurt forward from scratch at high speed, it can go up or down with supreme ease. Furthermore, the shape of a fish is ideal for swift, sinuous movement, and its underwater streamlining is perfect, as man recognizes when he makes submarines and torpedoes. The simple "jet-propulsion" with streams of water ejected swiftly backwards through the gills, the moulded body shape with its bullet-shaped head and tightly sealed jaws which allow no water to enter, the smooth-surfaced inset eyes, the scales and the tapering rear quarters are all admirably suited to speed progress through the water. The resistance of water, by the way, is something like 700 times that of air, so the really high speeds achieved by fish are little short of miraculous. It was formerly thought that the fins, particularly the caudal fin, and the tail were the sole and primary means of locomotion, but experiments have shown that a fish without tail or fins is far from helpless. The chief method of progression is through the rippling undulations of the fish's body, aided by the streams of water from the gills. The other organs are useful as steering devices, balancers, brakes, and aids to sudden movement, while the swim bladder inside all fish, a kind of sack containing gas lying just above the gullet, acts as a sort of hydrostatic lifebuoy, adjusting the gas contents according to the degree of water pressure at varying depths. Thus a fish can move quicky up or down in the water without experiencing any discomfort at the changes in external pressure.

Both the shape and tail formation of fish are good guides to their powers of speedy locomotion. The fastest fish have long, tapering cigar-shaped bodies, broad rather than high, whereas fish with short, high, laterally compressed bodies (the perch or bream shape, as opposed to the salmon shape) are slower-moving. Those fish with deeply forked tails are nearly always the fastest over long distances, and those with square or rounded tail patterns are usually slower movers, although most of them are able to make short dashes at high speed if the need arises.

It is extraordinarily difficult to get reliable proof of fish speeds, for there are many obstacles in the way of checking underwater movements, some of which may be startlingly sudden, with any degree of accuracy.

Fish speeds have been recorded with a variety of devices—by stopwatch, "fish-o-meter" attached to a rod to register the speed at which the line is run out, another similar device in which tank fish are harnessed with a fine silk cord which unwinds over a large pulley actuating a sensitive relay once every revolution; by taking a film of swimming fish and working out their speed by comparison of the varying positions on each picture-frame of the film; by timing a swimming fish from the known speed of a ship which it passes in a recorded time; even by calculating the speed of the current in a river and then working out the minimum speed a fish must achieve to make headway against it.

A French scientist, Professor A. Magnon, using the third device mentioned, has done a lot of work in this field, but most of his findings relate to the normal speeds of fish rather than to their absolute maximum speeds. He found pike, dogfish, salmon, sturgeon, tunny, and blue shark to be among the fastest of fish, and some typical speeds he recorded are salmon, 11 m.p.h.; tunny, 14 m.p.h. and blue shark, 24 m.p.h., all normal, rather than emergency speeds.

Salmon have attracted more speed investigators than any other fish, and a French expert who coaxed fish along a specially built track in the River Vienne found the salmon an easy first, at about 18 m.p.h. The highest recorded speed for a salmon is 25 m.p.h., although some authorities claim that it has been known to swim even faster.

All fish speeds, by the way, should be regarded against the world speed record for a human swimmer, which is 4.01 m.p.h. American bonefish, so beloved of anglers in the States, have been known to swim at 22 m.p.h., and the late Zane Grey, the famous novelist, tells how he once hooked one and ran towards it along the bank. In the time he took to cover 50 feet the fish had reeled out 400 feet of line, and assuming his speed to be only 5 m.p.h. the fish would appear to have reached 40 m.p.h. in a very short burst.

The fastest fish of all is the sailfish, a variety of swordfish, without any doubt. It has been known to take out 100 yards of line in three seconds, a speed of nearly 70 m.p.h., and anything over 60 m.p.h. is usual for these creatures in a sudden spurt of colossal energy and anger. Tunny also rush at a good speed, recorded as about 44 m.p.h. maximum by a "fish-o-meter," and a tunny that doesn't spurt off at 40 m.p.h. or over when it feels the hook is an unusual catch. But for sheer impact of speed, sometimes directed at a boat, the thrust of a swordfish takes some beating.

It has been shown that to drive the rapier of a swordfish through some 20 inches of hardwood, sheathed with copper and often faced with oak, takes a driving force at the moment of impact of at least 60 m.p.h.

The wahoo has been timed by stopwatch to travel 200 yards in 11 seconds, when hooked, which is an average speed of just over 37 m.p.h., while the fighting tarpon and mako shark can both reach a maximum speed of about 35 m.p.h., sometimes they hurl their bodies completely out of the water. The other really fast fish is the dogfish, to which a spurt of 30 m.p.h. comes easily.

Among the smaller species, the trout follows the salmon with a maximum speed of about 23 m.p.h., and more than one stopwatch has registered a pike's speed at 20 m.p.h. Devilfish at 14 m.p.h. and bass at 12 m.p.h., both maximum, are speedy adversaries, and even a minnow can swim at over 9 m.p.h., according to stopwatch calculations.

Here are some other authentic speeds recorded for species of special interest to anglers: perch, 10.2 m.p.h., roach, 10 m.p.h.; barbel, 11 m.p.h.; dace, 9.3 m.p.h.; carp, 7.6 m.p.h.; mullet, 8 m.p.h.; eel, 7.5 m.p.h. It is worth remembering that even this last speed is above the maximum for a human swimmer and is as fast as it is possible to walk without actually running.

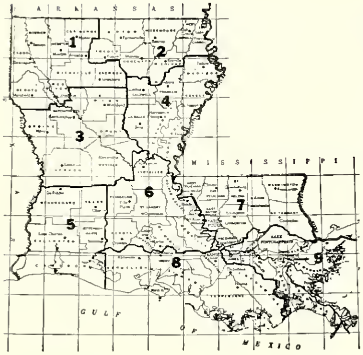
By way of comparison, the bream goes at only 1¼ m.p.h., although the picture presented by an octopus darting about at 4 m.p.h. runs contrary to the generally accepted opinion that these devilish creatures are slow-moving and sluggish by nature.

If our authenticated records of fish speeds over short distances are all too few, those covering long periods and distances are even rarer. A marked eel, however, is known to have swum 750 miles in 93 days, which gives it an average speed of around

(Concluded on page 29)

Field Facts

Devoted to Field Reports from Our Districts



DISTRICT I

Supervisor: John Haygood,
Box 224, Minden

District One is getting a new game management area. It will be located in North Bossier Parish between Benton and Cotton Valley. This will be a big step in building up a deer herd in this area. Goodness knows, we need it; northwest Louisiana hasn't had a deer season in many a year. *With the cooperation of the people* I believe that we can build up a deer herd that will easily rival Madison and Tensas Parishes.

By the time this goes to print, work should have started on the Lake Bistineau Improvement Plan. As most of you have probably already heard, this will involve fluctuating the water levels.

Two 40-acre squirrel study areas have been set up in Bienville Parish. Throughout the summer, squirrels will be trapped, weighed, examined, tagged in the ear with a small metal tag and released. From this work we hope to learn something about the life of North Louisiana squirrels, such as population densities, percent hunters kill and yearly turnover.

The wood duck nesting boxes on Lake Bistineau were used very little this spring. According to the old timers on the lake there just weren't as many wood ducks on the lake this year. Over on Wallace Lake just the reverse was true. Wood ducks really took to the boxes there. We made an attempt at repelling the chicken snakes this year with a band of sticky stuff around the trees but we were a little late. By the time we got the trees painted most of the ducks had completed nesting.

Two separate quail demonstration areas are being set up in North Caddo Parish's Red River Bottom. These two areas are to be managed for quail as intensely as possible without interfering with farming practices. Food and cover plots will be planted throughout the area-long ditch banks, wood lots, fence corners and turn rows. The object is to show landowners how quail can be raised on their farms without sacrificing too much valuable land. So far everything is working out fine. By the time you read this the fencing will be complete and the quail food plants should be making seed.

* * * *

DISTRICT II

Supervisor: Joe Herring,
Box 308, West Monroe

Perhaps the news of greatest interest from this district for the quarter was the transfer of Raymond Moody from his former position as District Supervisor to New Orleans as Assistant PR Coordinator. Joe L. Herring has been appointed District Supervisor for this district. During this quarter, District II headquarters were moved from West Monroe to the Monroe Fish Hatchery located on the Sterlington Road. Our mailing address, however, remains the same, P. O. Box 308, West Monroe, Louisiana.

Seventeen native Louisiana deer from Red Dirt were released in the Bayou LaFourche area of Richland Parish. This brings the total released here this year to thirty—16 does and 14 bucks.

Dove trapping began on Selman Field in May, and approximately 400 doves were banded during the month. The highest total for a single day was 134 birds banded and nine retraps. Many birds which were banded at Selman Field last year have been retrapped this year.

Several days were spent by district personnel assisting Bill Acklin, our Fish and Game Division engineer, checking and studying our waterfowl public shooting areas in this district. On site observations after the heavy rains of March convinced us that these areas will be of value if we can get the rain at the right time of the year.

The annual turkey gobbling count was made on Union Parish Game Management Area during April. This count is made annually for the purpose of keeping an index of the birds on and around the area. Other work on Union GMA during the quarter consisted of surveying out two pond sites under the supervision of the Soil Conservation Service technicians. These ponds will be constructed this summer.

Leases were secured on two quail management areas near Downvsille, in Union Parish. Each of these areas contains approximately 1,000 acres. A bird dog census was taken on one of the areas during April.

At the present time, it looks as if we will have a better than average crop of small game for the hunter to pursue during the coming season. Squirrels, rabbits, and doves seem more abundant than during the past several years.

* * * *

DISTRICT III

Supervisor: John Newsom,
P. O. Box 1041, Alexandria

One hundred and fify-four deer were trapped on Red Dirt Wildlife Management Area during the past trapping season. Of this number, seventy-five were does and seventy-nine were bucks. Deer were released in the following locations: DeSoto Parish—30; Ouachita Parish—32; Sabine Parish—14; Camp Polk, Vernon Parish—32, and Richland Parish—21. Sixteen bucks were tagged and released at the trap site; two does were released in the deer enclosure on Red Dirt, and nine deer, three bucks and six does were lost in handling.

The Police Jury of Natchitoches Parish has given excellent cooperation in this undertaking and should be commended for their support of our plan to continue the trapping operation plus a still hunt for bucks during the coming season on this area.

Available information indicates the need of a deer herd reduction on the Catahoula Game Management Area, and plans are being made to conduct a trapping and hunting operation on this area during the coming season. From here it appears that the April freeze has seriously curtailed the mast crop, oak and hickory especially, throughout this area. If this proves to be true, a sharp decline in the squirrel population should be in evidence before the end of this year. However, indications are that there will be a bumper crop of pine mast throughout the cut-over pine area of Louisiana; this should be evidenced in a good quail year. Although it may not mean more quail in the cut-over pine areas, the pine mast should hold the birds out of the swamps so they can be found.

Observations indicate that the breeding dove population is higher than it has been for a number of years. An early September hunting season should furnish excellent dove hunting throughout the state this year. So far this spring, dove trapping success has been about normal. Young of the year started to show up in our traps in April.

Gray rat snakes continue to be a problem with our woodduck boxes. The boxes on Black and Saline Lakes were checked n mid-May and snakes were found in two of the three occupied boxes. One snake had eaten six eggs and the other had eaten at least five.

Work on our demonstration quail development areas on the Evangeline Game Management Area and old Camp Claiborne is nearing the completion stage for this year. All food plots have been prepared for planting and are presently being fenced. It is hoped that the plantings can be completed during June.

Everyone in this neck of the woods is wondering what has happened to the fish this year. The barfish didn't strike on Catahoula Lake; the bass and crappie have been very slow on Saline, and the bluegills have not started on Saline although the pecan worms are about grown. Calling Fisheries Biologist Victor Lambou!! Any ideas, Vic?

* * * *

DISTRICT IV

Supervisor: Richard K. Yancey,
Box 107, Ferriday

Bi-monthly waterfowl inventories conducted by the 14 Mississippi Flyway States during the past fall and winter have produced an eye-opening picture of the waterfowl distribution and movements within that portion of the flyway which lies within the United States. The facts and figures gathered from these censuses have already exploded a number of ideas formed by people interested in waterfowl and they should succeed in changing more such theories in the future.

It was highly interesting to note that over half of the Mallard population remained within and north of Missouri and Kentucky throughout the entire fall and winter. During the January 1, 1955 census 4,200,000 mallards were recorded in the 14 flyway states, and of this number only 1,800,000 were found in Tennessee, Arkansas, Louisiana, Alabama, and Mississippi. The remaining 2,400,000 mallards were observed in Illinois, Missouri, Iowa, Wisconsin, Minnesota, Michigan, Ohio, Indiana, and Kentucky, with the chief concentration of almost 1,500,000 to be found along the Illinois River in Illinois. At this time the mallard population in Louisiana was near its peak of 500,000.

It was also interesting to note that when flights of puddle ducks move south from Canada they descend like a blanket over all of the flyway states almost simultaneously. In many cases the elapsed time for movements from the northern tier of states to the deep south was only 2 to 4 days. The largest single flight of puddle ducks recorded during the winter was detected in the northern states on October 25 and as far south as the coastal marshes of Louisiana on October 29.

The flyway Canada goose population ranged from 300,000 to 320,000 through the winter. Like the mallards, the bulk of the Canada goose population wintered in the northern states. During the December 1 census 240,000 were found in northern states, while only 78,000 were recorded in the southern states. Practically all of the flyway's blue and snow goose population wintered in the coastal marshes of Louisian.

The inventories also clearly defined the movements of coots through the Mississippi Flyway. The peak population observed reached 540,000 on October 15 when a general movement of coots took place into all of the flyway states. After that date the population declined in the northern states and this decrease was compensated for by a build-up in numbers for the southern states as these birds moved south. After November 15 the flyway population dropped to only 95,000 as most of the transient coots disappeared into other flyways.

From the southerners' viewpoint perhaps the most important indication brought forth by the census figures was that more and more ducks and geese are spending the winter in the northern states instead of moving south. While Louisiana, Arkansas, etc., have ample food and protection to offer a much larger share of the flyway duck population than they do now, these conditions are also being offered in increasing quantities by the northern states. From what we have seen in five years of inventory work over Louisiana, mallards respond only to food, availability protection (respite from gun pressure) and weather. Each flock seems to have a reason for every move that it makes, nearly always tying in with one of these factors. In most cases mallards don't move unless they have to, and they always seem to have a reason for making a shift.

Practically all of the waterfowl habitat in some of the northern states is being placed under intensive management (more feeding grounds being established in correlation with refuge protection), and this is providing mallards with all they require provided reasonable weather conditions continue to prevail. Being partially lazy, like most living creatures, they are naturally inclined to use the most convenient suitable wintering ground available. The northern states are providing more of such ideal conditions each year, and most of the mallard population no longer has the incentive to winter in the sunny south. All of their needs are being supplied several hundred miles closer to home (the nesting grounds).

It is conceivable that Louisiana's mallard flight may be eventually cut off by developments north of here just as the Canada Goose population has been. Our state population has already been affected, and there seems to be little evidence to indicate that the northern states can't finish the job of closing off our supply by completely fulfilling the wintering requirements of the entire flyway mallard population.

DISTRICT V

Supervisor: Jack Sims, Box 504, DeRidder

The rush season for development work has hit District V. This is the time of the year we make all of our plantings to furnish the game with supplementary food this winter. At the present time we are doing development work on three areas in the District.

On April 14 work was begun on the 1,840 acre quail development areas in the District. At the time of this writing, all boundary lines have been marked, and 46 one-acre plots have been located on the areas. These 46 plots have been planted using several different types of annual peas and grains. They are being fenced against stock that graze the open range area, but gates sand stiles will be provided for the hunters and their dogs. The area is located approximately 14 miles southeast of DeRidder on land owned by Crosby Chemicals, Inc. The land-owner has been very cooperative, giving the State a five-year free lease on the nearly 2,000-acre tract. Prior to hunting season, this office will make a map of the area available to all hunters who request them. This is just one of the seven such demonstration areas being developed in the State.

The food plots on the Public Dove Shooting Area on the DeRidder Airport have been plowed and fertilized, and from the looks of the plots we have a very good stand of re-seeding peas and sorghum. Provided we get ample moisture during the summer, the outlook for dove shooting on the area is very good.

On May 15 Raymond Rowell of Oakdale assumed the duties of Supervisor on the West Bay Game Management Area in Allen Parish. We are happy to welcome Raymond into the Commission and know he will do a fine job on the Area.

The research project on rabbits has been transferred to District V. We are now in the process of working up information that has been collected on the life history phase of the project. Plans are being made to do different types of development with food and cover to determine the best methods to use in managing rabbits. From the talk we hear, "Mr. Cottontail" is becoming very popular on the sportsmens' list. According to a survey made of license holders, conducted by the Commission, the rabbit ranked third last year on the preferred hunting list.

* * * *

DISTRICT VI

Supervisor: Joseph B. Kidd, 314 West
Cheney St., Opelousas

In late February, a brief deer trapping operation was conducted on Avery Island in Iberia Parish. Using soy beans as bait, 12 deer were trapped and removed in three trapping attempts with eight traps erected.

These deer, which are the marsh species,

Concluded on page 29

THEM IBIS IS ROUGH ON QUAIL

LaPlace

Concerning the article by Mr. Robert P. Allen entitled, "The White Ibis Situation in Louisiana", I wish to express my views.

The white ibis has almost completely destroyed the crawfish, frogs and snakes in our swamp, while the grasshoppers and cutworms (which Mr. Allen says are the main diet of the ibis) continue to eat up all of our gardens. Despite all the spraying the farmers are doing, there are still grasshoppers, cutworms, etc., while the swamp is completely wiped out of crawfish. I agree with the marsh men that the crawfish is the main diet of the mink, but before the rapid increase of the white ibis, crawfish never did run out.

I have stood in the swamp in May and watched these birds, drove after drove, combing the swamp. I have seen them swallow small frogs like a drunk at an oyster bar. I've seen them in swarms at a hole of water; any movement in the water meant sudden disaster to whatever it was—crawfish, frog, snake, perch, or any other creature. After their feeding, there wasn't a moving creature in the water, and the water was crystal clear.

The white ibis is the cause for the decrease of our rabbits and quail, also. After the ibis completely wipes out the swamp of all the mink food—crawfish, frogs, tadpoles, snakes and small fishes—the mink are forced to eat each other up or move out of the swamp to survive. When they move into the fields, they eat young quail, rabbits, mice, chickens in our coops, etc. Evidence last year showed that the mink had less feed in the swamp than ever before. Proof of this can be obtained from any mink trapper.

I suggest that this bird be outlawed and that a hunting season be opened with no bag limit. Various methods have already been tried to rid these birds from some sections of the swamp, but all were unsuccessful. We see no solution but to let the people who eat these "vultures" have a free hand.

—Ray A. Keating

Thanks, Ray. Anybody else? —C.H.G.

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PROTECTIVE SOCIETIES

The letter Mr. Thomason and Mr. Ford wrote in the March issue has prompted me to "speak my piece". First of all, if the game is so plentiful in Vernon Parish as these two gentlemen claim, I see no need for their making that long trip to Iberville Parish to hunt; in fact, I do not see why they should even be concerned with our fences, posted signs and societies.

I noticed that Mr. Thomason and Mr. Ford did not mention squirrel and deer in the list of abundant game in Vernon Parish. I wonder what happened to these two animals, and the rabbits, too.

A few years back the hunters from that same game-abundant parish invaded the hunting grounds of Iberville Parish in trucks and jeeps. They went back to Vernon Parish a week later with deep freezers full of does and yearlings. That probably accounts for the fact that they did not mention squirrels and deer as abundant game; maybe they did the same thing up there.

I'm a veteran of the Korean War and World War II. I looked after myself then and will continue to do so in the future, mainly seeing that I have a good place to hunt, even if it means stepping on a few Vernon Parish hunters' toes.

Our organization is doing a lot of good for ourselves and the Department of Wild Life and Fisheries and the wild game, at least we think so.

—J. Lubin Jewell, Jr., Member,
Atchafalaya Wildlife Protective Society

No comment. —C.H.G.

* * * *

FROM ONE HAND TO ANOTHER

Crowley

In the April issue of the CONSERVATIONIST there is an article, "Louisiana's Wetlands", by Ted Ford. His thesis is, and no one will deny it, that too much drainage and land reclamation of our swamps and marshes is detrimental to wildlife, waterfowl and fur bearing animals.

In the same issue is an article, "Your Public Shooting Grounds", by Carroll Perkins, in which is described the difficulty faced by the ordinary citizen in finding a place to hunt. It says that the Commission is making a concerted effort to establish areas on which the general public can hunt.

Meanwhile, the state of Louisiana owns over 5,000 acres of land, marsh and overflow land, north of Pecan Island in Vermilion Parish, a third of which it has leased for long terms for farming; and the lessees have built levees and ditches and installed pumps for drainage and irrigation to raise more rice to, make more surplus to add to that now owned by the federal government and stored in warehuses. And still more of the same land will be farmed in the future. And now, by direction of the Register of the State Land Office, the Sheriff of Vermilion Parish is advertising about 4,400 acres of this land for sale in small tracts at public auction in Abbeville on May 11, 1955.

Most of this land—not all—has supported wildlife in the past and could do so in the future. With proper supervision and know-how and not too much expense, it could be made a public hunting place.

—F. E. Everett

We were not aware of the pending sale of this land until too late to make arrangements which might have placed it in the category of public hunting grounds. We have been working as closely as possible with the State Land Office for the past year and hope to coordinate our activities more efficiently in the future.

We agree that state lands which would be beneficial for use as public hunting and fishing grounds should be so used. Hunting, fishing and trapping are all big business, and the need for recreation for the people of Louisiana can only become greater in future years. —C.H.G.

* * * *

BLOOD BAIT

Lake Providence

As a fisherman, I have been trying to find out a formula for making blood bait for catfishing. I've had very little luck. Could you help me out in this situation?

—Van Hicks

Who has a good recipe? —C.H.G.

* * * *

PROGRESS

New Orleans

I would like to ask your viewpoint on progress, which to me seems to be a worse danger to wildlife than fires. When I look around at progress, I ask myself, "Will they clear out all of our woodland areas for buildings and home projects? Will they destroy the homes of our native animals and leave them to die, and leave us with only the National Parks, which will have controlled undergrowth, sprayed trees, popcorn stands, trails leading to picnic grounds, and cages for the animals that once ran free?"

What is your answer to that question?

—Tex Zammit

We'll have to agree with you that the foremost problem that wildlife has to reckon with is progress. What we are trying to do is make people conscious of the value of our wildlife resources, so that they are not needlessly ruined in the course of this progress. —C.H.G.

DUCK HUNTING GLORY

Germantown, Tenn.

I was delighted to receive your biennial report and was more than impressed with Louisiana's successful activities in conservation work I predict you'll take all the duck hunting glory away from Arkansas and all other states in the not-too-distant future, along with setting the pace in common-sense conservation all over the country, at the rate you're going!

—Betty Barber

Thanks for the kind words, but all is not sweetness and light with the duck situation. Read Dick Yancey's comments in "Field Facts" (District 4) in this issue. —C.H.G.

* * * *

LITTLE RIVER POLLUTION—AGAIN

Pollock

I do enjoy the CONSERVATIONIST but I have some important questions to ask. Can you tell me why the Fish and Wild Life people don't stop oil field pollution in Little River? It is getting desperate. It is a shame to sit idly by and let this go on. It is against the laws of our state; why can't we all abide by them? I would like to know whether the oil companies are running our Wild Life and Fisheries Commission or whether they just don't abide by the laws of this state.

—J. B. Bodie

The Louisiana Wild Life and Fisheries Commission has made an extensive study of the effects of this pollution on the aquatic life to be found in Little River, and a report covering this work has been submitted to the Stream Control Commission.

Acting on information contained in this report, the Stream Control Commission issued Notices of Determination to the several oil companies operating in the Tullos-Urania Field. The replies from these oil companies have been considered unsatisfactory. The Stream Control Commission issued restrictive orders to these same oil companies. The oil companies have appealed to the Stream Control Commission to withdraw these restrictive orders, saying that to enforce these orders would bring about the financial ruin of the oil companies and bankruptcy to the commercial establishments in the Tullos-Urania area.

The Wild Life and Fisheries Commission and the Stream Control Cmmission have every intention of forcing this matter to a successful conclusion, to bring about the cleaning up of Little River.

—Frank J. Coogan

FIELD FACTS—

(Concluded from page 27)

are usually smaller than their upland cousins. The average weight of the adults was 100.5 pounds, including both bucks and does. The heaviest deer weighed 134 pounds and the lightest weighed 79 pounds. At the time of trapping, all the antlers were shed so information on antler formation was not obtained.

As a part of a quail development and research project, two study areas, 800 and 500 acres in size, have been developed in St. Landry Parish. Both areas will receive comparable development, but one will be open to hunting and the other will be closed. The purpose of this project is to compare and see the difference if any, between the quail population on an area that is shot and one that is not shot. It is planned to run this study for five years.

Such quail foods as soy beans, sow peas, millet and sorghum, have been planted in plots ¼ to one acre in size. Hog and cattle proof fences will be erected around the plots so that the maximum amount of food will be produced. The areas will be censused with bird dogs each year so an accurate check on the quail population can be made.

Fifteen wood duck boxes were erected on some ponds in early March at Avery Island. These boxes were checked during May but there was no usage apparent at this time.

Yours truly will be in Canada by the time this article is published, banding juvenile waterfowl. The purpose of the banding program is to assist the Fish and Wildlife Service in fulfillment of its responsibility under the Migratory Bird Treaty Act. Information received from band returns gives an indication of the relationship between the various breeding areas and what these breeding areas contribute to the four major flyways, the relative shooting pressure each year, and a measurement of the annual mortality of waterfowl.

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DISTRICT VII

**Supervisor: Kenneth C. Smith, P.O.
Box 9055, University Station**

There has been an increased interest in this district, and I believe all over the State, in our plain old everyday cottontail. He is gaining more prestige by the day and is the main topic of conversation in many a bull session. Mr. Rabbit has graduated from the meat-in-the-pot stage and is now going first class in Beagle Field Trials all over the State. District 7 personnel have been instructed by Mr. George C. Moore to look into two possible field trial sites with an eye toward development of the rabbit population. If and when these locations have been decided upon and consequently developed they will be available to any field trial club wishing to hold meets.

Many people will be glad to hear the Commission again has a beaver trapper employed to trap these animals in the Florida Parishes. The beaver is a fine animal and nice to have around, in most cases. Occasionally he gets out of bounds and moves into a corn patch, or floods good land or develops any one of several less desirable habits. Generally, he is a constructive, hard working fellow who holds malice toward no one and only asks to be let alone. He has constructed many fine ponds throughout the southeastern portion of the State but seldom are these deeds recognized.

A determined effort is being made to establish the beaver in many suitable locations in Louisiana, so don't be too surprised if one of these days you run across a neat dam with a fine pond behind it where formerly there was only a bare ditch with a trickle of water running through.

During the turkey season which was opened last April in four parishes in District 7, Capt. Leonard New and his Rangers kept records on the number of birds killed. About 35 turkeys were taken in the Florida Parishes. This doesn't sound like many but considering just what it takes to bag one of these smart old birds, it wasn't bad. Several people reported hearing gobblers but couldn't get a bead on them. All in all, folks seemed to be well pleased with the season.

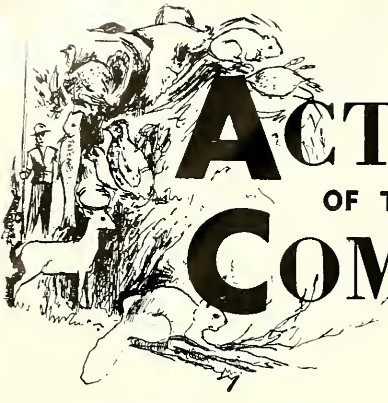
We've been getting reports from over St. Helena way that small fawns have been seen in the vicinity of the Flukers Bluff where 20 deer were released last year. This area has some fine range and if these deer do as well as those released in other parts of the State we'll be enjoying an open season on whitetails within five or six years. The deer situation is beginning to look up in Louisiana but we still have a long way to go to reach the top. ★

HOW FAST IS A FISH?

(Concluded from page 25)

nine miles a day, and a salmon has been known to swim at over 60 miles a day for more than ten days in succession. The usual daily mileage for a salmon in the sea has been estimated at nearer 25 miles per day, however.

It should hardly be necessary to add that if any angler ever gets the chance of measuring a fish's speed, over even the shortest distance, it would be a great pity to neglect the opportunity of adding to our knowledge of the subject.



ACTION OF THE COMMISSION

APRIL 26, 1955, MEETING

The low bid of Horace Mhire, $116,644, was accepted for construction of headquarters buildings on Rockefeller Refuge.

Director Young was authorized to accept a tract of land in Pineville, from the Department of Institutions, for the construction of district office and radio facilities. In addition, he was requested to cooperate with other state agencies in securing a copy of the detailed Tobin map of Louisiana. The cost for the eight departments will total $40,000.

Dr. Lyle S. St. Amant and Robert L. Eddy, Jr., chief, Commercial Seafoods Division, were instructed to conduct an experiment with the Continental Oil Co. relative to damage caused by sesmic charges up to 1,000 pounds in the Gulf. The Commission wanted to ascertain the damage to the bottom and to the fish when such charges are fired. A report was asked for the May board meeting.

Official approval was given the action by the director in closing the natural reefs east of the Mississippi river, in the parishes of St. Tammany, Orleans, St. Bernard and Plaquemines, from April 10 to September 1, 1955.

A request to permit use of turtle traps was denied.

The Lone Star Cement Corp. was issued a permit to dredge sand from the Rigolets between Route 90 Highway bridge and the L. and N. Railroad bridge.

Commission Chief Attorney Warren M. Simon and Attorney Joseph Di Rose of the State Mineral Board were asked to confer regarding the legality of seismic agents submitting carbon copies of their weekly reports to the Mineral Board. Seismic agents send in weekly activity reports to the Wild Life and Fisheries Commission.

It was requested that the Mineral Board consider offering two lots at Intra-Coastal City for exploration leases.

A group of landowners from Natchitoches parish petitioned the Commission as follows concerning Allen Dam in the Northwest Game and Fish Preserve: Removal of 24-inch wood structure from dam; operation of dam be placed under supervision of Wild Life and Fisheries for water control; Wild Life and Fisheries continue maintenance; accept liability of damages caused by the lake.

After a lengthy discussion, action on the proposal was deferred until the May Commission meeting, as was a proposal from the Northwest Fish and Game Commission to turn over regulation of the dam to the Northwest Commission.

Dr. St. Amant and James N. McConnell, chief, Oyster and Water Bottoms Division, were asked to investigate the possibility or feasibility of installing conch traps which were explained at the meeting.

The research contract between the Commercial Seafoods Division and the Louisiana State University was renewed and the director was authorized to pay L.S.U. the total of $8,000 to cover research work for the year April 15, 1955, to April 15, 1956. ★

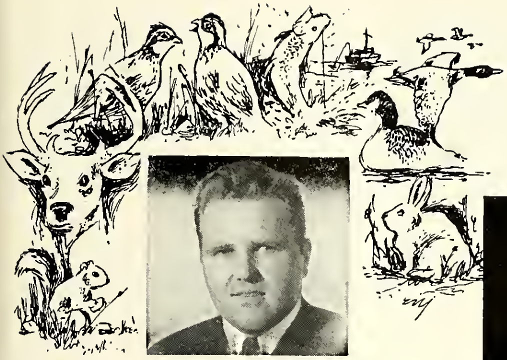
Southwest Deep Sea Rodeo Set

The 18th Annual Deep Sea Rodeo sponsored by the Southwest Louisiana Fishing Club, Inc., will be held on July 2, 3, and 4. Headquarters for this event is in Cameron, and the registration fee for the three days of fishing is $5.00 per person. About $5,000.00 worth of prizes are on tap for the three top fish in each of the following groups: Tarpon, Marlin, or Tuna; Grouper or Jewfish; Cobia; Bonita; Jackfish; Spanish Mackerel; King Mackerel; Dolphin; and Bluefish. There are also special contests for the ladies and for children, and a separate "inside waters contest" for speckled trout, redfish, drum, and sheepshead. Everyone is invited to attend the event at which the promoters claim "there are more fish caught per registered fisherman than in any deep sea rodeo in the nation". Additional information may be obtained from Wendell Lindsay, president of the Club, at 2017 Legion St., Lake Charles.

FISHING PLUGS FOR FISH TAGS

Catch yourself a fish and get a free fishing plug for doing so. That's the proposition offered Louisiana fishermen by Vic Lambou, fisheries biologist of the Commission. The only requirement is that the fish be wearing a red plastic tag bearing the inscription "Notify La. Wild Life & Fisheries Comm., Baton Rouge, Reward", and that you return that tag.

Your best spot to catch one of these fish is Clear Lake in Richland Parish. During the months of March and April the fisheries section of the Commission seined and tagged 1644 fish in this lake, returning them to the water. Most of the fish marked were crappie and bluegill bream, but some bass and other species of bream were tagged. The red plastic tags were attached to the fish just behind their dorsal fin with nylon thread. All fishermen who return one of these tags will be sent a Heddon River Runt or Lucky Thirteen. Get those tags in, fellows. They will add to our information as to the rate of harvest of game fish.



with the FEDERATION

DOVE BANDING IS A HELPFUL ACTIVITY:

Persons who wish to undertake an interesting and helpful outdoor hobby might turn to dove banding. This activity, which is being conducted and sponsored by the U. S. Fish and Wildlife Service and many of the state game departments, is done to gain greater knowledge of the habits and movements of these migratory birds.

Cooperators place regulation numbered leg bands on adult doves and nestlings during the breeding season. Records are kept of the doves that are banded and, as the birds are later retrapped, found in the field, or reported by hunters, the wildlife officials are able to trace their movements. As the numbers of birds banded and recoveries mount, the officials will be able to determine the best management program for these migrants.

Dove banding would be an excellent project for youth groups such as the Girl Scouts, Boy Scouts, 4-H Clubs, and Future Farmers of America. Under the direction of an adult sponsor, the youngsters could search out dove nests with the actual banding being done later in the company of the sponsor. Banding permits and the proper leg bands can be obtained from the U. S. Fish and Wildlife Service, Washington 25, D. C.

An explanatory information sheet, "Help Us Band Mourning Doves," can be obtained by writing Harold S. Peters, research biologist, U. S. Fish and Wildlife Service, Peachtree-Seventh Building, Atlanta 5, Georgia.

WILDLIFE SERVICE NOT CULPRIT IN DUCK STAMP DILEMMA:

House and Senate hearings have been held on a number of identical bills that would direct the U. S. Fish and Wildlife Service to use no less than 40 per cent of the duck stamp receipts for the purchase of suitable lands for migratory waterfowl. These bills were introduced following demands from sportsmen that more of the duck stamp funds be used for this purpose by the Service and less be used for routine operatin gexpenses.

Back in 1950, the Federal Government matched duck stamp funds with regular appropriations on about a fifty-fifty basis for waterfowl refuge maintenance. During the present fiscal year, however, not one cent is being supplied by the Federal Government. The whole maintenance burden has been shifted to the duck stamp buyers and not a single federal waterfowl refuge is being maintained on regular appropriations—every acre is on the duck stamp money.

The trend in forcing the Service to use the duck stamp receipts for routine operating expenses developed over the past few years with the refusal of the Bureau of the Budget to program sufficient federal money for this important work and with the failure of the Congress to appropriate the aditional required funds. Without the duck stamp money to fall back on—legally, but not as the sportsmen intended—the Service could not have done a satisfactory job of refuge maintenance and development. The imperativeness of this work cannot be denied; at times thes vital areas supply food and habitat for about half of the continental waterfowl population.

Even the Post Office Department, which prints and distributes the duck stamps, has gotten into the spirit of the times. From 1934 to 1951 the average annual charge for this service was $30,000. In the years 1952-53 it rose to $32,000, but in 1954 it skyrocketed to $150,000 and kept on climbing to an unprecedented $169,000 this year. Indications are that the charge will be hiked still further next year.

CONSERVATION WRITER APPRAISES NATIONAL RESOURCES SITUATION:

In his regular column in FIELD & STREAM magazine for May, conservation editor Harold Titus surveys natural resources issues on the national scene. Foremost among the topics discussed by Titus is the U. S. Fish and Wildlife Service and its meritorious wildlife refuge program.

Never before in his years of contact with this federal agency, Titus writes, did he find such a disturbing lack of prompt and decisive response to his questions. Coupled with this is the greater attention that the Service's affairs are receiving in the office of the Secretary of the Interior. While this might be good, Titus says, it also could be the "basis for the spreading suspicion that 'upstairs' is running the show without the normal amount of participation by the Service branches and their immediate supervisors."

Another cause for scrutiny, Titus reports, is the recommendation of the survey committee appointed by Secretary McKay that certain federal wildlife refuges be studied with the thought of relinquishing control of them. Those mentioned were units that harbor resident species of game—deer, antelope, bison, and mountain sheep. Coincident with this recommendation Titus found that "a move to ditch about 4½ million acres of refuge and management ranges in western States is shaping up."

Most of the land in these units once was so badly eroded and overgrazed that no one wanted it. Under at least 20 years of U. S. Fish and Wildlife Service administration it has regained its productivity and now supports satisfactory numbers of big game animals and provides much grazing for many head of domestic stock as well.

Just who might take over these lands, Titus was unable to determine. Most game departments could not do it, he pointed out, because they have insufficient funds to carry out their own programs as they wish. If the lands revert to the public domain and come under the Taylor Grazing Act, grazing presure could mount with ruinous consequences. Possibly they might be opened to homesteading. Should this come to pass the wildlife would be bound to lose anyway one looks at it.

BIG DAM FOOLISHNESS, by *Elmer T. Peterson.* Published by the Devin-Adair Company, 23 East 26th St., New York 10, N.Y., 1954. 5½" x 8½", 224 pages.

This book is an out-and-out condemnation of the big dam concept of flood control by a man who is fervently convinced of the folly of such an approach. Peterson is a convincing advocate of upstream watershed treatment as a means of flood control, and he cites voluminous "evidence" that would substantiate his beliefs. He believes in small dams far upstream where floodwaters originate, and in the value of vegetative cover and known agricultural techniques in holding water where it falls. Big dams have not been successful in preventing floods. In addition, they of necessity remove from use the most productive bottomland in the area.

Whether you are for or against big dams you should read this book. I'll go even further and say that it would be to the benefit of anyone interested in the outdoor resources to read this volume.

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FURS GLAMOROUS AND PRACTICAL, by *Frank G. Ashbrook.* Published by D. Van Nostrand Company, Inc., 250 Fourth Ave., New York 3, N.Y., 1954. 6" x 9", 88 pages. Price: $2.95.

Frank Ashbrook is well qualified to write a book of this kind. He has been with the U.S. Departments of Agriculture and Interior as biologist and fur specialist for more than 39 years, and in 1953 was chosen "Fur Man of the Year" by the fur industry. He is currently in charge of fur research for the U.S. Fish and Wildlife Service.

The United States is the leading nation in the use of fur. This is one of the many interesting facts brought out in this volume, and would indicate that there are an awful lot of people in this country who should be interested in this book. It is written clearly and concisely, giving the reader a complete picture of a fur from the raw skin to the finished coat. The processes by which furs are made "glamorous" are detailed. Some of the chapter headings will indicate the scope of this book: Facts About Some Important Furs; Wearing Qualities of Furs; Selecting and Buying a Fur Coat; Care, Cleaning, and Storage of Furs; and Protection Against Misrepresentation. One of the handiest features of the book is a chart, "A Consumer's Guide to Furs". A bibliography and a list of terms used in the fur trade round out a good book.

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STREAMS, LAKES, PONDS, by*Robert E. Coker.* Published by the University of North Carolina Press, Chapel Hill, N.C., 1954. 6" x 9", 327 pages. Price: $6.00.

As the flysheet says, this is a book "for all who are interested in inland waters and the life in them." It is an unusually complete presentation of the basic facts of fresh water ecology. The first portion of the book *describes* water and all its properties, the effects of heat and light, the chemical and biological relations of gases, stratification, and turbidity. The second section deals with running water and goes into the problem of pollution. The last part of the book is concerned with life to be found in still water—the plants, lower animals, jointed-leg animals, and vertebrates of the lake. Well illustrated with drawings and photographs. Water is all-important in our everyday lives, and with its increasing scarcity will come an increasing appreciation of that importance. This book should be well received by layman and professional man alike.

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GULF OF MEXICO, ITS ORIGIN, WATERS, AND MARINE LIFE. Compiled and edited by *U.S. Fish and Wildlife Service,* as Fisheries Bulletin No. 89, 1954. 8" x 10", 604 pages. Available from Superintendent of Documents, U.S. Govt. Printing Office, Washington 25, D.C. Price: $3.25.

This book is a summary of the existing knowledge about the Gulf of Mexico and represents the work of 55 contributors. In makeup, the book consists of a number of articles each written by a recognized authority in his field. A bibliography is given at the end of each chapter, adding to the usefulness of the volume. It is indeed a most useful book to all who are interested in the Gulf. Gathering together under one cover information of this scope was an ambitious undertaking—a worthwhile one.

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INTRODUCING SEA SHELLS, by *R. Tucker Abbott.* Published by D. Van Nostrand Company, Inc., New York, N.Y., 1955. 7½" x 10", 64 pages. Prices $2.50.

This is the companion publication to the more complete AMERICAN SEA SHELLS, by Abbott, which was reviewed in this column some months ago. Here are included six of the same color plates found in the more expensive volume, as well as many excellent black and white photographs and line drawings. It is a "colorful guide for beginners to the secrets of shell collecting, with fascinating information on how shells live and grow, stories about strange shells, and full directions for keeping a shell collection."

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A BOY AND HIS GUN, by *E. C. Jones.* Published by A. S. Barnes and Company, 232 Madison Ave., New York 16, N.Y. 6" x 9", 207 pages. Price: $3.50.

This is the second printing of this book, originally published in 1951. In this book Janes has approached, and handled well, a problem that most fathers of boys—and many girls—have to face. The desire to own and use a gun is as natural as eating and sleeping to the American youngster; it's a part of our heritage. Parents should accept this and prepare to handle the situation properly when the time arises. With world conditions as they are, it looks like all youngsters will come in contact with firearms at an early age, anyway. The boy who already has a respect for guns, a knowledge of their capabilities, and the ability to use them when he goes into service has a decided advantage.

In addition to material on how a parent should introduce his son to firearms this book has woven through it an appreciation of the out-of-doors in general. Janes follows his advice on introducing youngsters to guns with chapters on Gunning The Uplands, Hunting Ducks and Geese, Varmint Rifles, Hunting Deer, Keeping and Cooking Game, Clothing and Equipment, Gun Safety, and The Future of Hunting. Well written. A good text for the papas who aren't sure they know enough about guns and gunning to keep from being stumped by Junior's questions.

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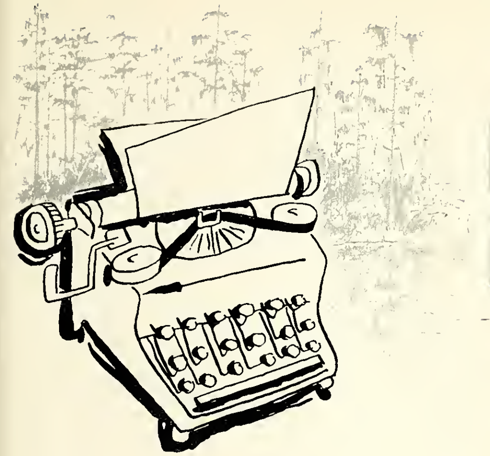
A FIELD GUIDE TO ANIMAL TRACKS, by *Olaus J. Murie.* Published by Houghton Mifflin Company, Boston, Mass., 1954. 4½" x 7½", 374 pages. Price: $3.75.

An excellent addition to the pocket-sized field guide series. It includes all the mammals of North America as well as many birds and insects. There are more than 1,000 illustrations, all done by the author himself. In addition to the actual "footprint" of the various animals, Murie has included much more material indicative of the "being there" of the animals. These include trail patterns, limb cuttings, mast cutting marks, and scats or droppings. It is a thorough book, drawing heavily from Murie's many years of outdoor living. For 25 years he was field biologist in the northwest for the U.S. Fish and Wildlife Service, and is currently president of the Wilderness Society. He lives in Moose, Wyoming, and is the author of THE ELK OF NORTH AMERICA.



Bayou Browsing

Did ya ever hear about the big one that got away? Ya did, huh! Well, I'll tell it anyway. Ye olde editor was surf fishing on Chandeleur Island a couple of weeks ago and dropped a Dixie Siren on a feeding redfish. That was probably my first mistake, considering the 10# line I was using for speckles, but fools rush in. Be that as it may, some 20 minutes and a quarter mile of beach later, having lost most of my line and all of the skin on my left thumb, and having waded out chest deep several times following the fish, I had him whipped. He was back within ten feet of shore, flouncing his last weak flounce, when the nylon-covered wire leader parted. Did ya ever see a grown man cry, and that was my first redfish—almost was, that is. As they always do in such cases I'll give the vital statistics: Heddon rod, South Bend reel, camouflage line, Dixie Siren lure. Weight of fish: Unknown, but undoubtedly of record size. Is there a chaplain in the crowd?

* * *

How do you like the four-color covers? They are two of the thirteen color plates in the Commission's new bird book, which will be released about the time this appears. Author of the book is George Lowery, Director of the L.S.U. Museum of Natural Science. Since the engraving for these cuts had already been made for the book, we were able to use them for covers ot an additional cost of about $450.00. It would normally cost about $800.00 additional in engraving costs and press run cost to use four-color on the front only.

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The Grand Isle Tarpon Rodeo starts a three-day run on July 14. Many boats will leave Lafitte about noon on the 13th after the traditional cake cutting ceremonies there, then make the run down through Barataria Bay to Grand Isle. A tremendous prize list is topped by a 1955 automobile. Entrance fee is $5.00, and you can reasonably expect to have about 2,000 anglers competing for the loot offered for the biggest tarpon, dolphin, cobia, tripletail, bonito, jackfish, sheepshead, Spanish mackerel, king mackerel, redfish, speckled trout, jewfish, manta, and shark. If you like people you'll get a kick out of this event, 'cause the people will be there.

* * *

About 25 members of the Louisiana Outdoor Writers' Association met at Wood's Lodge on Black Lake on April 30 for their spring get-together. L. D. Young, Jr., Director of the Wild Life and Fisheries Commission, was the speaker for the occasion. The next quarterly meeting of the LOWA will be held on Friday night, July 15, at Grand Isle, which will be during the G.I. Tarpon Rodeo.

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Latest (that I've heard of, that is) on the docket of the Corps of Engineers is a barge canal from Venice to Leeville. It would go directly through some of the best oyster producing areas in the state, and what the change in current flow and the siltation that accompanies such an operation will do that production is not difficult to imagine. Neither is it pleasant.

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Primarily through the efforts of the Enforcement Division, we now have in our files a complete record of most of the boat docks and camps in Louisiana. If you have need for information as to the accommodations in a particular area, drop us a line. We intend to get all of this material out to you in the CONSERVATIONIST as space permits. Meanwhile, next time you see your wildlife ranger tell him you appreciate his efforts in digging this data up. Also, about half of the material in the "Charter Boats in Louisiana" feature in the May-June issue was gathered by rangers. Harry Gates, of Lake Charles, also deserves a pat on the back for his work on that.

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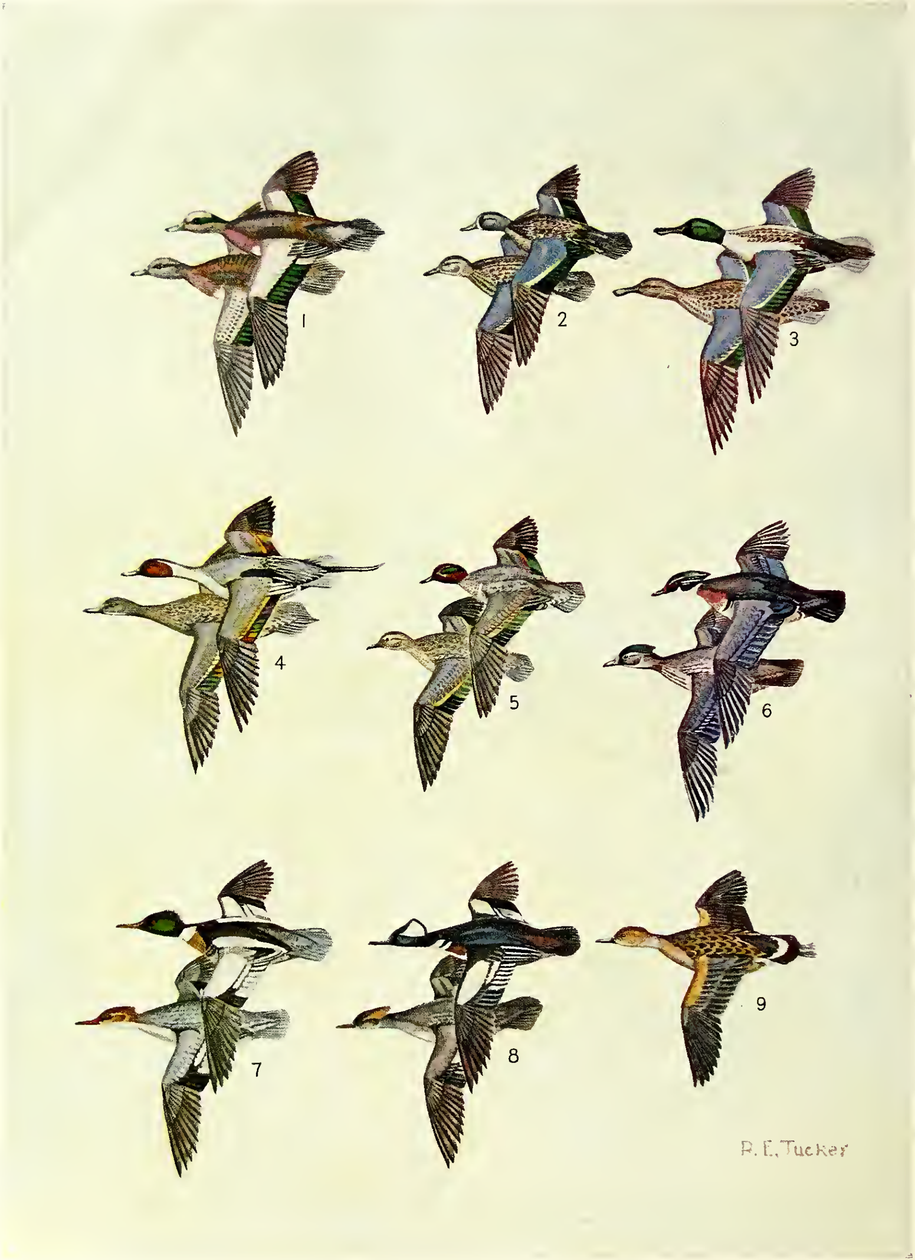
All my thoughts at this time are tempered by the knowledge that Dick Eschmeyer is dead. He was a good friend, although I had only come in contact with him perhaps a dozen times. We'll miss you sorely, Esch, but know that you've passed on to tighter lines and fuller creels.

—C.H.G.



DUCKS IN ADULT WINTER PLUMAGE

(Males in foreground when both sexes are shown)

1. American Widgeon 2. Blue-winged Teal 3. Shoveler 4. American Pintail 5. Green-winged Teal 6. Wood Duck 7. Red-breasted Merganser 8. Hooded Merganser 9. Fulvous Treeduck.

This is a reproduction of Plate VII from the book *Louisiana Birds* soon to be published by Louisiana State University Press for the Louisiana Wild Life and Fisheries Commission.